# Academic Calendars

## 2021–2022

### Fall Quarter 2021
- Quarter begins: September 20
- Instruction begins: September 23
- Veterans Day holiday: November 11
- Thanksgiving holiday: November 25–26
- Instruction ends: December 3
- Common final examinations: December 4–5
- Final examinations: December 6–10
- Quarter ends: December 10
- Christmas holiday: December 23–24
- New Year's holiday: December 30–31
- Winter campus closure: TBD

### Winter Quarter 2022
- Quarter begins: January 3
- Instruction begins: January 3
- Martin Luther King, Jr. holiday: January 17
- Presidents' Day holiday: February 21
- Instruction ends: March 11
- Common final examinations: March 12–13
- Final examinations: March 14–18
- Quarter ends: March 18

### Spring Quarter 2022
- Quarter begins: March 23
- César Chávez holiday: March 25
- Instruction begins: March 28
- Memorial Day holiday: May 30
- Instruction ends: June 3
- Common final examinations: June 4–5
- Final examinations: June 6–10
- Quarter ends: June 10
- Commencement ceremonies: June 10–12

### Summer 2022
- Summer session begins: June 20
- Independence Day holiday: July 4
- Labor Day holiday: September 5
- Summer session ends: September 9

## 2022–2023

### Fall Quarter 2022
- Quarter begins: September 19
- Instruction begins: September 22
- Veterans Day holiday: November 11
- Thanksgiving holiday: November 24–25
- Instruction ends: December 2
- Common final examinations: December 3–4
- Final examinations: December 5–9
- Quarter ends: December 9
- Christmas holiday: December 23, 26
- New Year's holiday: December 30–January 2
- Winter campus closure: TBD

### Winter Quarter 2023
- Quarter begins: January 4
- Instruction begins: January 9
- Martin Luther King, Jr. holiday: January 16
- Presidents' Day holiday: February 20
- Instruction ends: March 17
- Common final examinations: March 18–19
- Final examinations: March 20–24
- Quarter ends: March 24

### Spring Quarter 2023
- Quarter begins: March 29
- César Chávez holiday: March 31
- Instruction begins: April 3
- Memorial Day holiday: May 29
- Instruction ends: June 9
- Common final examinations: June 10–11
- Final examinations: June 12–16
- Quarter ends: June 16
- Commencement ceremonies: June 16–18

### Summer 2023
- Summer session begins: June 26
- Independence Day holiday: July 4
- Labor Day holiday: September 4
- Summer session ends: September 15
General Catalog Information

UCLA General Catalog
Published July 2021 © 2021 Regents UC

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 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 Division website.

Production Credits
Claire McCluskey, Associate Registrar
Blake Livesay, Research Analyst/Editor
Karen Robbins, Designer/Editor and digital production
The UCLA General Catalog is produced by the UCLA Registrar's Office Academic Publications group using Courseloop, FrameMaker, and other software.

Cover
Campus highlights: Dickson Court north, Ostin Music Center, palm court within Bunche Hall, and the entrance to Powell Library.

Title page
Royce Hall symbolizes UCLA. One of the original four campus buildings completed in 1929, its Lombard Romanesque architecture harks back to the Abbey Church of Sant’Ambrogio in Milan and other Italian sources. It is named after California philosopher Josiah Royce.

Photography
© 2012 Kyle Alexander, licensed to UCLA; Jeffrey Lamont Brown; Christina L. Buswell; Todd Cheney; Michal Czerwonka; Stephanie Diani; Rajat Ghosh; Ken Hively; © 2013 Patrik Giardino; © Reed Hutchinson, licensed to UCLA; Harlan Lebo; Don Liebig; Alan Nyiri, Photographer, Atkinson Photographic Archive, UCLA University Archives, © UC Regents; photo by Max Pixel, used under Creative Commons CCO license; Karen Robbins; Sonja Smith; Juan Tallo; Paul Turang; © 2013 Coral Von Zumwalt, licensed to UCLA; © 2010-2015 Elena Zhukova for UC Office of the President.
Thanks to Chancellor’s Office; School of Engineering; Image Library; International Institute; Library; and UCLA Newsroom/UCLA Today for contributing photographs from their collections.
From the Chancellor

This Catalog describes the incredible array of academic offerings available to you at UCLA. Choose from 5,000 courses each term, 139 bachelor programs, 132 master’s and professional programs, 124 doctoral and professional programs, and 99 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 also a welcoming place for students from diverse backgrounds. Those admitted to our freshman class for 2021–22, for example, represent all 50 U.S. states and 116 countries. Like all Bruins, these students have a thirst for knowledge and are determined to make a positive impact on society.

Our faculty of more than 4,700 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.

This fall, we are aiming to offer in-person instruction for a substantial majority of courses, as well as most labs. For students who are unable to join in person, there will be remote offerings that will enable students to make progress toward their degrees. With the transition to mostly remote instruction last spring due to the pandemic, we learned a lot about how to continue delivering the exceptional education you expect from UCLA.

Despite the challenges we have all faced this past year, 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 100 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
# Table of Contents

**Academic Calendars** ........................................... 1FC

**General Catalog Information** ............................... 2

**From the Chancellor** ....................................... 3

**Majors and Degrees** ....................................... 6
   Undergraduate Minors and Specializations ................. 10
   Graduate Concurrent and Articulated Degrees ............ 11

**About UCLA** ............................................... 13
   History of UCLA ........................................... 14
   University of California System .......................... 15
   Campus Life ............................................... 16
   Academic Programs ....................................... 17
   Research Programs ....................................... 19
   Galleries and Museums .................................... 22
   Libraries .................................................. 23
   Special Archives and Collections ......................... 25
   Parks, Reserves, and Natural Science Resources .......... 26
   UCLA Health System ...................................... 26
   Student Services ......................................... 27
   Student Activities ....................................... 36

**Undergraduate Study** ................................... 40
   Shared Governance ....................................... 40
   Undergraduate Admission ................................ 40
   Registration .............................................. 43
   Financial Support ....................................... 47
   Majors and Degrees ...................................... 51
   Degree Requirements .................................... 52
   Undergraduate Research ................................ 53
   Internships and Service Programs ....................... 54
   Lower-Division Seminar Programs ......................... 57
   Academic Advising and Support ......................... 57
   Academic Excellence ..................................... 60

**Graduate Study** ........................................... 62
   Shared Governance ....................................... 62
   Graduate Admission ..................................... 62
   Registration .............................................. 65
   Financial Support ....................................... 68
   Degree Requirements .................................... 69

**Policies and Regulations** ................................. 72
   Academic Policies ....................................... 72
   Administrative Policies .................................. 84
   Regulations ............................................... 90

**College and Schools** .................................... 99
   College of Letters and Science .......................... 99
   David Geffen School of Medicine ......................... 110
   Henry Samueli School of Engineering and Applied Science .... 111
   Herb Alpert School of Music ............................. 121
   John E. Anderson Graduate School of Management ........ 128

   Jonathan and Karin Fielding School of Public Health .... 129
   Meyer and Renee Luskin School of Public Affairs ........ 135
   School of the Arts and Architecture .................... 142
   School of Dentistry ...................................... 149
   School of Education and Information Studies .......... 150
   School of Law ............................................ 158
   School of Nursing ........................................ 166
   School of Theater, Film, and Television ................. 172

**Curricula and Courses** ................................ 179
   Course Information ....................................... 179
   Aerospace Studies – Air Force ROTC .................... 180
   African American Studies ................................ 181
   African Studies ........................................... 187
   American Indian Studies ................................ 187
   Anesthesiology and Perioperative Medicine ............ 192
   Anthropology .............................................. 192
   Applied Linguistics ...................................... 202
   Archaeology .............................................. 202
   Architecture and Urban Design ........................ 204
   Art ................................................................ 208
   Art History ................................................ 211
   Arts and Architecture .................................... 219
   Arts and Architecture Schoolwide Programs ............ 219
   Asian American Studies ................................ 220
   Asian Languages and Cultures .......................... 227
   Atmospheric and Oceanic Sciences ...................... 249
   Bioengineering ............................................. 256
   Bioinformatics ............................................. 263
   Biological Chemistry .................................... 264
   Biomedical Research ..................................... 265
   Biostatistics ............................................... 267
   Brain and Behavioral Health ............................. 270
   Chemical and Biomolecular Engineering ............... 270
   Chemistry and Biochemistry ............................ 276
   Chicana/o and Central American Studies ............... 288
   Civil and Environmental Engineering .................. 299
   Classics .................................................... 306
   Cluster Program ........................................... 316
   Communication ............................................ 318
   Community Engagement and Social Change ............ 323
   Community Health Sciences ............................ 326
   Comparative Literature ................................ 332
   Computational and Systems Biology .................... 338
   Computational Medicine ................................ 341
   Computer Science ......................................... 344
   Conservation of Cultural Heritage ...................... 354
   Dentistry ................................................... 357
   Design/Media Arts ........................................ 357
   Digital Humanities ....................................... 360
   Disability Studies ........................................ 361
   Earth, Planetary, and Space Sciences ................... 364
   East Asian Studies ....................................... 372
   Ecology and Evolutionary Biology ....................... 373
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 Interdepartmental Program
  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
  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

Chicana and Chicano Studies Department, César E. Chávez
  Chicana and Chicano Studies ........... BA, MA, PhD

Classics Department
  Classics ................................. MA, CPhil, PhD

Classical Civilization ...................... BA
  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 Archaeological and Ethnographic Materials Interdepartmental Program
  Conservation of Archaeological and Ethnographic Materials ... MA
  Conservation of Material Culture ......... MS, PhD

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

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
  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
  Environment and Sustainability ....... MS, PhD
  Environmental Science .................. BS
  Environmental Science and Engineering .... DEnv

European Languages and Transcultural Studies Department
  European Languages and Transcultural Studies .... BA
European Languages and Transcultural Studies with French and Francophone ........................................ BA
European Languages and Transcultural Studies with German ......................................................... BA
European Languages and Transcultural Studies with Italian ......................................................... BA
European Languages and Transcultural Studies with Scandinavian ................................................ BA
French and Francophone Studies ................. MA, CPhil, PhD
Germanic Language ........................................ MA, CPhil, PhD
Italian .......................................................... MA, CPhil, PhD
Nordic Studies .................................................. BA
Scandinavian ..................................................... MA

Gender Studies Department
Gender Studies .............................................. BA, MA, PhD

Geography Department
Applied Geospatial Information Systems and Technologies ........................................................... MAGIST
Geography ..................................................... BA, MA, CPhil, PhD
Geography/Environmental Studies ............... BA

Global Studies Interdepartmental Program
Global Studies ................................................ BA

History Department
History ........................................................ BA, MA, CPhil, PhD

Individual Field of Concentration
Individual Field of Concentration ......................... BA, BS

Indo-European Studies Interdepartmental Program
Indo-European Studies ...................................... MA, CPhil, PhD

Integrative Biology and Physiology Department
Physiological Science ........................................ BS, MS

International and Area Studies Interdepartmental Program
African and Middle Eastern Studies ...................... BA
Asian Studies .................................................. BA
European Studies .......................................... BA
Latin American Studies ................................ BA
International Development Studies Interdepartmental Program
International Development Studies .................. BA

Labor Studies Interdepartmental Program
Labor Studies ................................................ BA

Latin American Studies Interdepartmental Program
Latin American Studies ................................ MA

Linguistics Department
Applied Linguistics .......................................... BA
Linguistics ...................................................... BA, MA, CPhil, PhD
Linguistics and Anthropology ............................... BA
Linguistics and Asian Languages and Cultures ........ BA

Linguistics and Computer Science ..................... BA
Linguistics and English .................................... BA
Linguistics and French .................................... BA
Linguistics and Italian .................................... BA
Linguistics and Philosophy ............................... BA
Linguistics and Psychology .............................. BA
Linguistics and Scandinavian Languages .......... BA

Mathematics Department
Applied Mathematics .................................... BS
Data Theory .................................................... BS
Financial Actuarial Mathematics ....................... BS
Mathematics ................................................. BS, MA, MAT, CPhil, PhD
Mathematics/Applied Science .......................... BS
Mathematics for Teaching ............................... BS
Mathematics of Computation .......................... BS

Mathematics/Economics Interdepartmental Program
Mathematics/Economics ................................ BS

Microbiology, Immunology, and Molecular Genetics Department
Microbiology, Immunology, and Molecular Genetics ......................................................... BS, MS, PhD

Molecular Biology Interdepartmental Program
Molecular Biology .......................................... MS, PhD

Molecular, Cell, and Developmental Biology Department
Molecular, Cell, and Developmental Biology ........ BS, MA, CPhil, PhD

Molecular, Cellular, and Integrative Physiology Interdepartmental Program
Molecular, Cellular, and Integrative Physiology ........ PhD

Near Eastern Languages and Cultures Department
Ancient Near East and Egyptology ..................... BA
Arabic .......................................................... BA
Iranian Studies ............................................ BA
Islamic Studies ............................................. MA, CPhil, PhD
Jewish Studies ............................................. BA
Middle Eastern Studies ................................ BA
Near Eastern Languages and Cultures ................ MA, CPhil, PhD

Neuroscience Interdepartmental Program
Neuroscience .................................................. BS

Philosophy Department
Philosophy .................................................... BA, MA, CPhil, PhD

Physics and Astronomy Department
Astronomy and Astrophysics ......................... BS, MAT, PhD
Astrophysics ................................................ BS
Biophysics ...................................................... BS
Physics ........................................... BA, BS, MS, MAT, PhD

Political Science Department
Political Science .............................. BA, MA, CPhil, PhD

Psychology Department
Cognitive Science ............................ BS
Psychobiology ............................... BS
Psychology ................................. BA, MA, CPhil, PhD

Slavic, East European, and Eurasian Languages and Cultures Department
Central and East European Languages and Cultures ... BA
Russian Language and Literature ............. BA
Russian Studies ............................... BA
Slavic, East European, and Eurasian Languages and Cultures ......................... MA, CPhil, PhD

Social Science Interdepartmental Program
Social Science .................................. MSS

Society and Genetics, Institute for Center for Interdisciplinary Instruction
Human Biology and Society .................. BA, BS

Sociology Department
Sociology ................................. BA, MA, CPhil, PhD

Spanish and Portuguese Department
Hispanic Languages and Literatures .......... CPhil, PhD
Portuguese ................................ MA
Portuguese and Brazilian Studies ............... BA
Spanish ....................................... BA, MA
Spanish and Community and Culture ......... BA
Spanish and Linguistics ....................... BA
Spanish and Portuguese ...................... BA

Statistics Department
Applied Statistics .......................... MAS
Data Theory ................................ BS
Statistics ................................... BS, MS, CPhil, PhD

Study of Religion Interdepartmental Program
Study of Religion ............................. BA

David Geffen School of Medicine

Computational Medicine Department
Biomathematics ............................. MS, PhD
Clinical Research .......................... MS

Human Genetics Department
Genetic Counseling ........................ MS
Human Genetics ............................. MS, PhD

Medicine Schoolwide Program
Medicine ..................................... MD

Microbiology, Immunology, and Molecular Genetics Department
Microbiology, Immunology, and Molecular Genetics . MS, PhD

Molecular and Medical Pharmacology Department
Molecular and Medical Pharmacology ........ MS, PhD

Molecular, Cellular, and Integrative Physiology Interdepartmental Program
Molecular, Cellular, and Integrative Physiology ........ PhD

Neuroscience Interdepartmental Program
Neuroscience ............................... PhD

Physics and Biology in Medicine Interdepartmental Program
Physics and Biology in Medicine ............. MS, PhD

School of Education and Information Studies

Education Department
Education ................................. MA, MEd, EdD, PhD
Educational Administration ................ Joint EdD with UCI
Education and Social Transformation ......... BA
Special Education ........................ Joint PhD with CSULA

Information Studies Department
Information Studies ......................... PhD
Library and Information Science ............. MLS

Henry Samueli School of Engineering and Applied Science

Bioengineering Department
Bioengineering ............................. BS, MS, PhD

Chemical and Biomolecular Engineering Department
Chemical Engineering ..................... BS, MS, PhD

Civil and Environmental Engineering Department
Civil Engineering ........................ BS, MS, PhD

Computer Science Department
Computer Engineering ........................ BS
Computer Science .......................... BS, MS, PhD
Computer Science and Engineering ............ BS

Electrical and Computer Engineering Department
Computer Engineering ..................... BS
Electrical and Computer Engineering .......... MS, PhD
Electrical Engineering ........................ BS
Engineering Schoolwide Programs
Engineering ............................................. ME, MS, MEng
Engineering – Aerospace ............................. MS
Engineering – Computer Networking ............. MS
Engineering – Electrical ............................ MS
Engineering – Electronic Materials ................. MS
Engineering – Integrated Circuits .................. MS
Engineering – Manufacturing and Design ......... MS
Engineering – Materials Science ................... MS
Engineering – Mechanical ........................ MS
Engineering – Signal Processing and Communications... MS
Engineering – Structural Materials ................. MS

Materials Science and Engineering Department
Materials Engineering ............................. BS, 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
Music ................................. BA, MA, MM, DMA, CPhil, PhD
Music Composition .............................. BA
Music Education ................................. BA
Music Performance ............................ BM

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

John E. Anderson Graduate School of Management
Management Department
Business Administration ........................ MBA, MBA, EMBA, GEMBA
Business Analytics ................................ MS
Financial Engineering ............................ MFE
Management ................................... MS, CPhil, PhD

Jonathan and Karin Fielding School of Public Health

Jonathan and Karin Fielding School of Public Health

Biostatistics Department
Biostatistics ..................................... MS, PhD

Community Health Sciences Department
Community Health Sciences ..................... MPH-HP, MS, PhD

Environmental Health Sciences Department
Environmental Health Sciences ................ MS, PhD

Epidemiology Department
Epidemiology ................................. MS, PhD

Health Policy and Management Department
Health Policy and Management ................ EMPH, MS, PhD
Healthcare Administration ......................... MHA

Molecular Toxicology Interdepartmental Program
Molecular Toxicology ............................ PhD

Public Health Schoolwide Programs
Public Health ................................. MPH, DrPH

Meyer and Renee Luskin School of Public Affairs

Meyer and Renee Luskin School of Public Affairs

Public Affairs Schoolwide Programs
Public Affairs ................................. BA

Public Policy Department
Public Policy ................................. MPP

Social Welfare Department
Social Welfare ................................ MSW, PhD

Urban Planning Department
Urban and Regional Planning .................. MURP
Urban Planning .............................. PhD

School of the Arts and Architecture

School of the Arts and Architecture

Architecture and Urban Design Department
Architectural Studies ............................. BA
Architecture .................................. MA, PhD

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
   Culture and Performance .............................. MA, PhD
   Dance ......................................................... BA
   Choreographic Inquiry .............................. MFA
   World Arts and Cultures ......................... BA

School of Dentistry
Dentistry Department
   Dental Surgery ........................................ DDS
Oral Biology Section
   Oral Biology ........................................... MS, PhD

School of Law
Law Department
   Law ............................................................. LLM, JD, SJD
   Legal Studies ............................................... MLS

School of Nursing
Nursing Department
   Nursing .................................................... BS, MS, MSN, PhD
   Nursing Practice ........................................ DNP

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
   Digital Humanities
   Disability Studies
   Earth and Environmental Science
   East Asian Studies
   English
   Environmental Systems and Society
   Ethnomusicology
   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
Hebrew and Jewish Studies
History
History of Science, Technology, and Medicine
International Migration Studies
Iranian Studies
Israel Studies
Labor Studies
Latin
Latin American Studies
Lesbian, Gay, Bisexual, Transgender, and Queer Studies
Linguistics
Literature and 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 Thought
Society and Genetics
South Asian Studies
Southeast Asian Studies
Spanish
Spanish Linguistics
Statistics
Structural Biology
Study of Religion
Systems Biology

Graduate School of Education and Information Studies
Education Studies

Henry Samueli School of Engineering and Applied Science
Bioinformatics
Environmental Engineering

Herb Alpert School of 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 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 Concurrent and Articulated Degrees
Inquiries about concurrent and articulated 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.

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 Interdepartmental MA/Law JD
African Studies Interdepartmental MA/Public Health MPH
American Indian Studies Interdepartmental MA/Law JD
Architecture MArch/Urban Planning MURP
Asian American Studies Interdepartmental MA/Public Health MPH
Asian American Studies Interdepartmental MA/Social Welfare MSW
Community Health Sciences MPH/Urban Planning MURP
Education MA, PhD, MEd, or EdD/Law JD
Environmental Health Sciences MPH/Urban Planning MURP
Latin American Studies Interdepartmental MA/Urban Planning MURP
Management MBA/Computer Science MS
Management MBA/Dentistry DDS
Management MBA/Latin American Studies Interdepartmental MA
Management MBA/Law JD
Management MBA/Library and Information Science MLIS
Management MBA/Medicine MD
Management MBA/Nursing MSN
Management MBA/Public Health MPH
Management MBA/Public Policy MPP
Management MBA/Urban Planning MURP
Philosophy PhD/Law JD
Public Health MPH/Law JD
Public Health MPH/Public Policy MPP
Public Health MPH/Social Welfare MSW
Public Policy MPP/Law JD
Public Policy MPP/Medicine MD
Social Welfare MSW/Law JD
Social Welfare MSW/Public Policy MPP
Urban Planning MURP/Law JD

Articulated Degrees

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

Latin American Studies Interdepartmental MA/Education MEd in Curriculum
Latin American Studies Interdepartmental MA/Library and Information Science MLIS
Latin American Studies Interdepartmental MA/Public Health MPH
Medicine MD/Graduate Division health science major PhD
Oral Biology MS or PhD/Dentistry DDS or Certificate
Public Health MPH/Medicine MD
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 Graduate Division 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, and public affairs. The other professional schools offer graduate degree programs and undergraduate minors.

Undergraduates may earn one of 132 bachelor degrees; graduate students may earn one of 124 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 2019-20 UCLA received $1.43 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 the greatest commitments UCLA makes. Undergraduate and graduate programs, research activities, community outreach programs, and grass-roots participation by students, faculty, staff, 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 more than 6,500 Bruins perform service work at over 40 community partner sites across Los Angeles. Bruin Corps 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 46,000 students and 4,300 faculty members. With 219 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 280,000 students, over 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 32 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; gardens 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 41,982 students, is enriched by an additional 4,062 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, 86 percent of lower-division lecture classes in 2019-20 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).

Dynamic Student Body
Students at UCLA pride themselves on academic excellence. The fall quarter 2020 entering freshman class had an average high school GPA of 4.43, with an average SAT Reasoning Test composite score of 1,390 out of a possible 1,600.

One of the highest UCLA priorities is to advance the diversity of its students, faculty, staff, and administrators. The UCLA student population—nearly equally divided between men and women—yields the wide range of opinion and perspective essential to a great university.

Although most students are from California, they come from all 50 states and 137 foreign countries to study at UCLA. Ethnic minorities comprise 73.0 percent of the undergraduates and 66.6 percent of the graduate student population,
and international students and scholars presently number over 12,000, making this one of the most popular American universities for students from abroad.

**Retention and Graduation**

Retention and graduation rates in undergraduate programs at UCLA are consistently among the highest in the nation. At least 96 percent of all students entering as freshmen and 94 percent of all students entering as transfers regularly return to enroll at UCLA for the second academic year and beyond.

For entering freshmen, 84.0 percent graduate within four years, and 91.2 percent within six years. The average time to degree is 12 or fewer quarters (i.e., four or fewer years). For entering transfer students, 72.7 percent graduate within two years and 94 percent of all entering transfer students eventually graduate from UCLA.

More information on campus statistics is available from Academic Planning and Budget.

**Academic Programs**

UCLA has a tradition of advancing higher education and the common good through excellence in scholarship, research, and public service. Academic excellence, faculty distinction, and a comprehensive curriculum are hallmarks of the UCLA experience. The College of Letters and Science and 12 graduate and professional schools present an extraordinary richness and diversity of teaching programs.

Academic programs offered at UCLA span the breadth and depth of over 200 disciplines and areas of study. Lecture, discussion, laboratory, research, and creative courses are supplemented by seminars, honors programs, specialized freshman clusters, internships, and education abroad opportunities. Instruction takes place in many unique venues, including specialized classrooms, computer and 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 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 more than 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 on collaborative global and regional research initiatives.
In addition to its 21 area-based research centers—including its newest members, the Promise Armenian Institute and Armenian Studies Center—the institute also houses the Burkle Center for International Relations, Center for the Study of International Migration, Center for World Languages, Center for Buddhist Studies, Fulbright Enrichment Program, and International Visitors Bureau, among other units. The U.S. Department of Education has designated the centers focused on the Near East and Southeast Asia as National Resource Centers. The National Heritage Language Resource Center is the nation’s first specialized center for heritage language teaching.

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 A.D. 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, geochronology, 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 Study of Urban Poverty
National Center for Research on Evaluation, Standards, and Student Testing
UCLA Anderson Forecast

Health Sciences

Fernald Child Study Center
Jonsson Comprehensive Cancer Center
Mary S. Easton Center for Alzheimer’s Disease Research
UCLA AIDS Institute

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, Zuniga, 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 locate and identify materials through web-based library information systems. The UCLA Library catalog contains records for all its holdings and other campus collections, including 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. It also includes library item location and circulation status.

Other available catalogs include the UC Libraries Catalog (Melvyl), WorldCat, Center for Research Libraries, Online Archive of California, numerous abstracting and indexing databases, and gateways to other systems. The Melvyl Catalog contains information on library holdings at all 10 UC campuses.

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, Paramount Pictures, Warner Brothers, Sony/Columbia Pictures, Republic Pictures, RKO, New World Pictures, and Orion Pictures. Special collections document the careers of William Wyler, Hal Ashby, Tony Curtis, Rosalind Russell, Stanley Kramer, Cecil B. DeMille, Harold Lloyd, Charlton Heston, Rock Hudson, and other persons of prominence in the American film industry.

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.

Parks, Reserves, and Natural Science Resources

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 the Common Collaboration and Learning Environment (CCLE).

### 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 Arthur 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 USee LA Optometry in nearby Ackerman Union. Visits, core laboratory tests, X-rays, and preventative 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 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.

<table>
<thead>
<tr>
<th>UCLA EMERGENCY NUMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police, Fire, or Medical Emergency</td>
</tr>
<tr>
<td>UCLA Medical Center Emergency Room (24 hours)</td>
</tr>
<tr>
<td>UCLA Counseling and Psychological Services (24 hours)</td>
</tr>
<tr>
<td>UCLA Police (24 hours)</td>
</tr>
</tbody>
</table>

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 Reauthorizatior 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 80 student community service officers (CSO) who are the additional eyes and ears (trained observers) of the department and act as nonintervention 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 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.

**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.

**Residential Housing**

UCLA is the size of a small city, and provides residential housing to approximately 16,000 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 hand in hand 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. 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 state-wide 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.

**UCLAradio**

**UCLAradio** 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.

**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, includ-
About UCLA / 33

ing 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.

Students preparing to graduate can use the Campus Photo Studio for their senior yearbook portraits. Graduation Etc. sells and rents caps, gowns, and hoods for degree ceremonies; and offers announcements, diploma mounting, 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 has an office in West Los Angeles and a branch office 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 Veterans 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 planning and support free to all UCLA students.

Career Planning and Exploration

Career advisers offer assistance in exploring career options, evaluating graduate and professional school programs, and developing skills to conduct a successful job search. In addition, advisers can offer 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.

Employment Assistance

Students looking for part-time, temporary, or seasonal employment to help finance their education and develop their skills, can find listings through Handshake. Handshake is an online platform that connects UCLA students with thousands of internships, jobs, and career opportunities.

Students can sign up to participate in on-campus interviews for internships and jobs. Annual career fairs and special events offer additional opportunities to meet employers.

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, testing-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 community, particularly for nonimmigrant students. An online
About UCLA

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. 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 ePermit is paperless, and uses a vehicle’s license plate as its parking permit.

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. MDDS operates a U.S. Postal Service contract post office in Wilshire Center off campus.

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, four deluxe residence halls, two residential suites, and five residential
All on-campus housing buildings are coed and within walking distance to classrooms. New freshman 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.

The Office of Residential Life is responsible for student conduct in residence halls and suites. Its professional and student staff members can counsel students on residential problems.

Sponsored 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 gender, sexuality, and society; sustainable living; global health; and various cultures.

Off-Campus Housing
Within walking distance of campus, UCLA maintains nine undergraduate off-campus apartment buildings for full-time, single transfer, and upper-division students. Apartments vary from singles to three-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 six 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 Veterans 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 educa-
tional, 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 available 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 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 beginning and intermediate levels. Private lessons in arts, dance, martial arts, sports, aquatics, and other activities are also available. Fitness is 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 gymnasia; 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 119. In 2018-19, UCLA men’s and women’s athletic programs placed 6th in the Directors Cup national all-around excellence survey; men placed in the top 10 three times and women six times over the nine years in 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, 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 76 NCAA titles—second highest in the nation—including 19 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 43 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 and tennis, and one in soccer. 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 Bonfire and 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 139 majors in the College of Letters and Science and seven professional schools: Henry Samueli School of Engineering and Applied Science; Herb Alpert School of Music; 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 vice provost for undergraduate education, the division 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 and Transition Programs; as well as the Academic Advancement Program, College Honors programs, Center for Undergraduate Research, and Center for Community Engagement.

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 Admissions 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; 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 November 1 through 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 composition and literature, integrating extensive reading of classic and modern literature and content-rich works of nonfiction; frequent writing, from brainstorming to final paper; and practice listening and speaking with different audiences. No more than one year of ESL-type courses can 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. Laboratory Science.** Two years of laboratory science that supply fundamental knowledge in two of the following: biology, chemistry, and physics; or one year of either biology, chemistry, or physics, and one year of interdisciplinary science, integrated science, or Earth and space sciences

**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

- A. History/Social Science 2 years
- B. English 4 years
- C. Mathematics 3 years
- D. Laboratory Science 2 years
- E. Language Other than English 2 years
- F. Visual and Performing Arts 1 year
- G. College Preparatory Electives 1 year

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 for the SAT or ACT test will not be considered for admission or scholarship purposes through fall 2024. 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 for future application terms beyond fall 2022.

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. (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. Applicants transferring from other UC campuses are next in priority, followed by applicants transferring from other colleges and universities. 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 that 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 at UCLA, 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 × 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
310-825-1091, option 6

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 non-residents 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. UCSHIP covers medical, vision, dental, and behavioral health services.

The UCSHIP fee is billed each term along with other UCLA fees. UCHIPS 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 UCHIPS, 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 UCHIPS services under certain conditions. Contact the Ashe Center to learn more.

UCSHIP Waiver

Students may waive UCHIPS 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 UCHIPS 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.

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 with College or school approval for enrollment in 10 units or fewer pay only half the nonresident supplemental tuition fee. Students must file a Fee Reduction Request with the College or school office by Friday of the second week of classes for the applicable term.

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.
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.

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 Orientation takes 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 or Section 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 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.

- 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
- College of Letters and Science
  **Academic Advancement Program**, 1209 Campbell Hall
  **College Academic Counseling**, A316 Murphy Hall
  **College Honors Programs**, A311 Murphy Hall
  **Student Athletics**, Morgan Center
- 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
- 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 immu-
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. The Scholarship Resource Center can also help with a thorough search for outside scholarships.
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 undergraduate scholarship application. Continuing 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.

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, Army, and Navy/Marine Corps. Completed four-year scholarship applications should be submitted by December 31 (Air Force and Navy/Marine Corps) or February 28 (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 (UCSHIP). 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.
Borrowers must realize their commitment and responsibility to repay according to repayment schedules. Students are required to submit the Annual Student Loan Agreement (ASLA) each year to assess their total educational debt and ability to repay after graduation. 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 and ASLA. PLUS borrowers must also complete the ASLA each year before accepting a PLUS loan.

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 re-payment 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, A227 Murphy Hall.

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 139 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; 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
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 either the College Board Advanced Placement Examination in English Composition or in English Literature and Composition
- 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 composite score of 8 or higher 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, 3DS, 3E, 3SL). For more information, see Entry-Level Writing.

English as a Second Language

First-year undergraduate students whose native 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 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.

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 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 of these equivalent courses. 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 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.

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 Academic Policies.

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,
Undergraduate Study

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 advice and leads for internships, fellowships, and other experiential learning opportunities in the U.S. and abroad. Many helpful resources are featured online. Options for current students and graduates include teaching or volunteering abroad, research or fieldwork, and internships in almost every occupation or industry. UCLA Career Peers advise students on search techniques to identify relevant employers and programs. All career advisers and career peers also offer support for students eager to gain hands-on experience.
DC Fellows Summer in Washington Program

The DC Fellows summer internship program supports students from all majors and class levels who are seeking summer work experience in Washington, DC. Assignments are available with elected officials, government agencies, public interest groups, international organizations, media, and a wide range of public and private sector organizations. The fellows program offers advice on searching and applying for internships, as well as housing support and the option to apply for alumni-sponsored scholarships.

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 Army, Navy, Air Force, or Marine Corps while completing their college education. ROTC courses are offered by three departments within the College of Letters and Science: Aerospace Studies (Air 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 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.

Math for LA

Math for LA (formerly Joint Mathematics/Education Program)—offered jointly by the School of Education and Information Studies and the Mathematics Department—consists of two pathways, each leading 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 information, contact The Curtis Center in 5602 Mathematical Sciences Building; or the Mathematics Student Services Office in 6356 Mathematical Sciences Building.

Mathematics for Teaching BS

The Mathematics for Teaching capstone 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 additional courses devoted to training in high school mathematics instruction. Combined with its lower-division component, 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 competence requirement for a Single Subject Teaching Credential in Mathematics. For information, contact The Curtis Center in 5602 Mathematical Sciences Building.
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 California Teach

The UCLA California 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 advances community-engaged scholarship to support student learning and create value for the broader community. 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. The center’s long-term goal is to bring together UC faculty members with undergraduate students to pursue research related to state government, poli-
tics, and public policy. UCCS places students in intensive one-term policy-related internships throughout the state Capitol building and in the Sacramento policy community. UCCS is open to all juniors and seniors with at least a 3.0 grade-point average.

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. GE and honors credit is granted for most seminars, which are offered in winter and spring quarters only. Enrollment is limited. For more information, contact the Center for the Advancement of Teaching by e-mail.

Fiat Lux Seminar Program

As a cornerstone of the innovative undergraduate curriculum at UCLA, up to 200 seminars are offered annually through the Fiat Lux Seminar Program. 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 and Transition Programs

UCLA New Student and Transition Programs welcome new undergraduate students to UCLA and ease their transition into and throughout the first year. New Student Orientation introduces students to UCLA through academic counseling and educational planning and orients students to all the special programs available to them. During orientation, students work in small groups with peer counselors and gain insight into necessary academic skills. They learn how to plan their academic program and become familiar with educational opportunities, student services, and facilities available at UCLA. 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 Orientation 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 and Transition 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 successful transition to the second year. For more information, contact the New Student and Transition Programs office in 201 Covel Commons.

College and School Advisers

The College and each school and academic department 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, and Student Athletics. Undergraduates in the seven professional schools are served by their respective student services offices. See the Registrar’s academic counseling 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 and Research Programs

Graduate Mentoring and Research Programs (GMRP) 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 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 10 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; 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 Graduate Division. 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. Invitations are issued in winter quarter, and an induction ceremony is held during spring quarter. 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 winter quarter and are due by mid-February. 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 council 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 3.70 (for 140 or more UC units); the minimum number of UC units considered is 80 (students at the 80-unit level must have at least a 3.85 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, contact Phi Beta Kappa in the UCLA Scholarship Resource Center, 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, and an induction ceremony is held during spring quarter.

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, Graduate Division, 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 Graduate Division, and College and school faculty executive committees.

Graduate Division

The UCLA Graduate Division 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 Division 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 Division 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 below.

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 Graduate Division.
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 the Schools of Dentistry, Law, and Medicine
Applicants for MLS, MS, and PhD programs in the schools of dentistry, law, and medicine should apply for admission to Graduate Division as described. For admission to DDS, JD, LLM, SJD, and MD degree programs in the schools of dentistry, law, and medicine, applicants should consult school websites.

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 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
Immunity, Microbes, and Molecular Pathogenesis
Molecular, Cellular, and Integrative Physiology
Molecular and Medical Pharmacology
Molecular Pharmacology: Diagnostics, Therapeutics, and the Biology of Disease
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 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 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**

Nonnative English-speaking international graduate students who plan to work as teaching assistants (TAs) are required to take the Test of Oral Proficiency (TOP), which is administered by the Center for the Advancement of Teaching (CAT). Students who do not plan to work as teaching assistants do not need to take the TOP.

Students who hold a bachelor’s degree from a U.S. institution are exempt from taking the TOP. However, those holding only a master’s degree from a U.S. institution are not exempt.

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 either before or during their first term 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 term 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 CAT TOP web page.
Graduate Study / 65

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 Concurrent and Articulated 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 Graduate Division 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 Graduate Division, 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 Graduate Division, summer session grades are included on the graduate transcript and computed in the grade-point average.

Registration

Registrar’s Office
1113 Murphy Hall
310-825-1091, option 6

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](#). 

**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 Graduate Division 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](#).

**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 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.

**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. UCHSIP covers medical, vision, dental, and behavioral health services. The UCHSIP fee is billed each term along with other UCLA fees. UCHSIP 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 UCHSIP, 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 UCHSIP services under certain conditions. Contact the Ashe Center to learn more.

**UCHSIP Waiver**

Students may waive UCHSIP 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 UCHSIP 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](#).

**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.
Filing Fee

Graduate students may be eligible to pay the filing fee (half the quarterly student services fee) in lieu of full term registration fees, for the filing fee usage 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.

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 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.

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.

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 fees web page.

Class 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 or Section 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 study list 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 Graduate Division continuing student funding for details.

The Graduate Division 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 endowment 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.

**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.

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 Graduate Division Academic Services, 1255 Murphy Hall. 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.

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, which may include specific courses, and these 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 Graduate Division (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

<table>
<thead>
<tr>
<th>UNDERGRADUATE CLASS LEVELS</th>
</tr>
</thead>
<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>
</tr>
</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>
</tr>
</thead>
<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>
</tr>
<tr>
<td>Professional School (PF3)</td>
</tr>
</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 Graduate Division, 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 Graduate Division, 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 depart-
ment 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 Under-
graduate Council, assign a credit value to such general
examination. The department may also excuse the student
from final examinations in courses offered by the depart-
ment during that term.

An instructor may release to individual students their origi-
nal final examinations (or copies). This may be done by any
method that ensures the students’ right to privacy. Other-
wise, the instructor shall retain final examination materials,
or a copy thereof, until the end of the next succeeding reg-
ular 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
dergraduate 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>
<td></td>
<td></td>
</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).

<table>
<thead>
<tr>
<th>GRADE-POINT EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>A–</td>
</tr>
<tr>
<td>B–</td>
</tr>
<tr>
<td>C+</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

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 Graduate Division, 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 Graduate Division 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 student is suspected of having engaged in plagiarism or otherwise having cheated, the suspected infraction is to be reported to the appropriate administrative officer of the University for consideration of disciplinary proceedings against the student. Until such proceedings, if any, have been completed, the Deferred Report (DR) grade is assigned for that course. If in such disciplinary proceedings it is determined that the student did engage in plagiarism or otherwise cheat, the administrative officer, in addition to imposing discipline, reports the nature of the plagiarism or cheating back to the instructor of the course involved. In light of that report, the instructor may replace the DR grade with a final grade that reflects an evaluation of that which may fairly be designated as the student’s own achievement in the course as distinguished from any achievement that resulted from plagiarism or cheating.

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 made more than one year after the original filing must be validated for authenticity of the instructor’s signature by the department chair. Any grade change request made by an instructor who has left UCLA must be countersigned by the department chair. No grade change may be made once a student has graduated. All grade changes are recorded on the transcript.

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 Code of Conduct 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 graduate, 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.

<table>
<thead>
<tr>
<th>READMISSION DEADLINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Quarter</td>
</tr>
<tr>
<td>Winter Quarter</td>
</tr>
<tr>
<td>Spring Quarter</td>
</tr>
</tbody>
</table>

**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) consti-
tutes 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 grad-
uate work may, with the support of their department and
approval of the Graduate Division, be eligible for leaves of ab-
sence. Graduate students are allowed three quarters of offi-
cial leave of absence. See the [Leave of Absence Request](https://example.com) 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](https://example.com), in consultation with the Graduate Division, 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 nor-

mally available to registered students. There is no need to
apply for readmission, since the approved leave is for read-
mission 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](https://example.com) (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 semes-
ters for master’s and professional graduate students. See the [In Absentia Registration Petition](https://example.com) 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 can-
cellation or withdrawal, must apply for readmission.

Students who have registered at any time as a graduate stu-
dent at UCLA and return after an absence (except a formal
leave of absence) must file an [Application for Graduate Admission](https://example.com). 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 aca-
demic 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.

Official UCLA paper transcripts are printed on security
paper to safeguard against unauthorized duplication, alter-
ation, and misrepresentation. The paper has a 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,
and the transcript legend appears on the reverse of the
document.

Official UCLA electronic PDF transcripts contain a back-
ground design, identifying border text, authentication
details, and legend. The secure file is sent with a cover page
that includes UCLA, student, and recipient information.

Two types of official UCLA transcript—academic and proof
of enrollment—are designed to meet specific needs. Both
can be ordered through [MyUCLA](https://example.com), as can an unofficial (stu-
dent 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 fol-
lowing the conclusion of final examinations. Complete aca-
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. If verification is required before the degree is posted, the student 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 and verification transcripts through MyUCLA. Other students may order transcripts through MyUCLA, in person at 1113 Murphy Hall, or by using a Transcript Order form.

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

**Fees and Payment**

Most academic and verification transcripts 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 use a Legal Name Change or Correction. 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 to award of their degree. See UCLA Procedure 220.1, Student Grievances Regarding Challenge to Content of Student Records Under the Family Educational Rights and Privacy Act.

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 stu-
dents 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 sam-
ple of this evidence in digital archives maintained by the
Division of Undergraduate Education. All information
stored, created, or derived by this archival function is gov-
erned 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 con-
ducted 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
Undergraduate Education Division, the Graduate Division,
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 identifi-
cers 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 departmen-
tal 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 Undergradu-
ate Education Division digital archive by expressing their
wishes by e-mail.

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 fol-
lowing 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 requi-
sites, and fulfilling 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 main-
tain 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 pro-
bation 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 situa-
tion, they are given conditions for continuation or are dis-
missed from UCLA.

Progress toward the Degree
UCLA is a full-time institution, and it is expected that stu-
dents 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 regulations. 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; take more or fewer units than regulations permit; 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 grades 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, Graduate 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.

- **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
• College of Letters and Science  
  Academic Advancement Program, 1209 Campbell Hall  
  College Academic Counseling, A316 Murphy Hall  
  College Honors Programs, A311 Murphy Hall  
  Student Athletics, Morgan Center
• 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
• School of Theater, Film, and Television  
  Student Services Office, 103 East Melnitz Building

Graduate Degrees
For graduate degree requirements and procedures, see program requirements for UCLA graduate degrees and Standards and Procedures for Graduate Study at UCLA (PDF).

Certificate of Resident Study
International students who must leave UCLA and the U.S. before completing a degree or certificate program may request a Certificate of Resident Study in addition to a formal transcript. The certificate cannot be awarded if the studies involved are covered by a diploma or other certificate. The chair of the major department recommends award of the certificate through a petition to the College, school, or Graduate Division.

To be eligible to receive the certificate, students must have completed a program of at least nine courses with a minimum GPA of 2.0 (2.5 for Graduate Division students) and have satisfactorily completed a research project over a period of nine or more months.

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.

A student may change the degree-expected term through MyUCLA by the time 160 units (172 units for engineering students) are completed. Once 160 or 172 (or more) units have been completed, a fee is assessed each time a student identifies or changes the degree-expected term. Current- or past-term candidates over the unit limit must file a Declaration of Candidacy form with the Registrar’s Office.

Friday of the second week of the term is the last day to declare candidacy for the current term (with fee depending on units completed). Declaration of candidacy after week two incurs a late fee.

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 submit a Request to Graduate In Absentia form to their degree auditor in 1113 Murphy Hall, by the week-two candidacy deadline. Students graduating in absentia are assessed the undergraduate in absentia degree-processing fee, in addition to the declaration of candidacy fee, if they were also not 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:

- **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
- **College of Letters and Science**
  Registrar’s Office, 1113 Murphy 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
- **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 or at 1113 Murphy Hall. They may be assessed applicable fees.

Contact degree auditors only for questions about degree audits. Telephone numbers are 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 Graduate Division 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

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 ($ 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 effect 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 if 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. In response to the COVID-19 pandemic, some requirements have been temporarily amended. For more information, see temporary amendment to UC residency policy and guidelines.

### 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
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 have 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.

Effective July 2015, certain members of the U.S. Armed Forces on active duty and veterans (and their dependents) who were separated from U.S. military service are eligible for G.I. Bill (Post-9/11 or Montgomery) program funds may qualify for an exemption from nonresident supplemental tuition.

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 supplemental 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.

Special Circumstances

Undergraduate students are entitled to resident classification if they are a spouse, natural or adopted child, or stepchild who is a dependent of a member of the U.S. Armed Forces stationed in California. If they are enrolled in an educational institution and the U.S. Armed Forces member is transferred on military orders to a place outside California where he or she continues to serve in those forces, or the U.S. Armed Forces member retires from active duty immediately after having served in California on active duty, they may retain resident status as long as they remain continuously enrolled at that institution.

Graduate of a California High School

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 (maximum of two years), 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 California state GED Office 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. Nonimmigrant 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 unmar- ried dependent child, spouse, or registered domestic part- ner 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 depend- ent 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 clas- sification 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.

Student Athlete in Training at the U.S. Olympic Training Center, Chula Vista
Any amateur student athlete in training at the U.S. Olympic Training Center in Chula Vista may be entitled to a resident classification for one year. Such a student may thereafter be eligible to receive a resident classification if the student demonstrated timely satisfaction of residence requirements. A U.S. Olympic Training Center official must provide the student with a letter confirming 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 230.1, also available in 1104 Murphy Hall, for more information and procedures.

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. An assistant dean 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 reasonable 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 UCLA Procedure 230.2 for more information and procedures.

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, 22SS 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 (UC Policies) 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 or Student Legal Services 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 conduct that occurs off campus and that would violate student conduct when (1) the alleged misconduct 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 the alleged victim is a member of the campus community; the ability of the University to gather information, including the statements of witnesses; 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. For the 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.

Regardless of whether the use of unauthorized materials is through third-party software or websites (e.g., 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).

102.01d: Multiple Submissions. Multiple submissions includes, but is not limited to, the submission for credit in a UCLA course of any work which has been previously submitted in identical or similar form, at any educational institution, to fulfill the requirements of another course, without the informed permission or consent of the instructor of the second course. Multiple submissions also includes the submission of work for credit, in identical or similar form in concurrent courses, without the permission or 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.

102.01f: Coercion Regarding Grading or Evaluation of Coursework. Threatening personal or professional reper-
cussions 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.

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 located 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).

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.

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 the UC Policy on Sexual Violence and Sexual Harassment 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 his or her safety, or the safety of his or her 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 UCLA Student Conduct Code prohibits retaliation against a person who reports stalking, assists someone with a report of stalking, or participates in any manner in an investigation 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 the UC Policy on Sexual Violence and Sexual Harassment 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 genetic characteristics), genetic information (including family medical history), ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services (including protected veterans) from participation in any academic, research, or other University service, program, or activity.

102.11b: Harassment. Harassment means conduct that 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, or creates a work environment that is intimidating, hostile, or abusive. Sanctions may be enhanced where an individual was selected for harassment because of the individual’s race, color, national or ethnic origin, citizenship, sex, 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 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.

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 her or his 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 and state laws or regulations, 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 her or his 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 her or his 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.

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 written Notice of Interim 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 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 notes or recordings. 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, non-public 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.

Expression consent is clear, unmistakable, and voluntary consent that may be in written, oral, or non-verbal 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 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.

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. You have the right to report to the University, and you 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 Title IX Office can take administrative action, and the Title IX Office can explain those options to you. In addition, the Title IX Office 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 Wooden Center West first floor 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.

Caring 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, 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) present 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 violator 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 Code of Conduct

The entire Faculty Code of Conduct, as well as any updates, can be found in the Academic Personnel Manual of the University of California (PDF). Part IIA of the Faculty Code of Conduct outlines faculty obligations to students and reads as follows:

Teaching and Students

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).

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 enrolled course units, 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, Graduate Division, 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

David C. Schaberg, PhD, Senior Dean and Dean of Humanities
Miguel A. García-Garibay, PhD, Dean of Physical Sciences
Darnell M. Hunt, PhD, Dean of Social Sciences
Tracy L. Johnson, PhD, Dean of Life Sciences
Adriana Galván, PhD, Dean of Undergraduate Education

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 28,340 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 multiracial, multiethnic, 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 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 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.

**College Academic Counseling**

*College Academic Counseling* (CAC) advises College undergraduate students 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. Academic advisers partner with students to support student personal, professional, and intellectual growth.
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 and Transition Programs

New Student Orientation is 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.

Scholarship Resource Center

The Scholarship Resource Center (SRC) 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.

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 145 majors leading to bachelor's, master's, and doctorate degrees. In addition, the College offers 84 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.

<table>
<thead>
<tr>
<th>Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Requirements</td>
</tr>
<tr>
<td>1. Entry-Level Writing or English as a Second Language</td>
</tr>
<tr>
<td>2. American History and Institutions</td>
</tr>
<tr>
<td>College Requirements</td>
</tr>
<tr>
<td>1. Unit</td>
</tr>
<tr>
<td>2. Scholarship</td>
</tr>
<tr>
<td>3. Academic Residence</td>
</tr>
<tr>
<td>4. Writing Requirement Writing I Writing II</td>
</tr>
<tr>
<td>5. Quantitative Reasoning</td>
</tr>
<tr>
<td>6. Foreign Language</td>
</tr>
<tr>
<td>7. Diversity</td>
</tr>
<tr>
<td>Department Requirements</td>
</tr>
<tr>
<td>1. Preparation for the Major</td>
</tr>
<tr>
<td>2. The Major</td>
</tr>
</tbody>
</table>

Courses that do not satisfy specific UC, College, or department requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.

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, 3DS, 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 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
- Public Affairs 60
- Statistics 10, 12, 13

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
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.

---

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundations of the Arts and Humanities</strong></td>
<td></td>
</tr>
<tr>
<td>Literary and Cultural Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td>Philosophical and Linguistic Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis and Practice</td>
<td>1 course</td>
</tr>
<tr>
<td>Total = 15 units minimum</td>
<td></td>
</tr>
<tr>
<td><strong>Foundations of Society and Culture</strong></td>
<td></td>
</tr>
<tr>
<td>Historical Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td>Social Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td>Third course from either subgroup</td>
<td>1 course</td>
</tr>
<tr>
<td>Total = 15 units minimum</td>
<td></td>
</tr>
<tr>
<td><strong>Foundations of Scientific Inquiry</strong></td>
<td></td>
</tr>
<tr>
<td>Life Sciences</td>
<td>2 courses</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>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>
<td></td>
</tr>
<tr>
<td>Total = 17 units minimum</td>
<td></td>
</tr>
<tr>
<td><strong>Total GE</strong></td>
<td>10 courses/47 units minimum</td>
</tr>
</tbody>
</table>

---

**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 pro-
cess, 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.

Each department sets its own major requirements; see Curricula and Courses.

**Departmental Majors**

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.

**Interdepartmental Majors**

An interdepartmental major consists of a minimum of 48 upper-division units and a maximum of 75 upper-division units, of which no more than 32 units may be coursework in one department. The programs are administered by interdepartmental committees made up of faculty whose membership is determined by research interest, not by departmental affiliation. By cutting across the usual lines of departmental division, a field is studied from the perspectives of different disciplines, and a greater degree of program flexibility is achieved.

**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 vice provost 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. Normal progress toward graduation in four years is defined as the completion of 45 units per year, or 15 units per term.

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.

Minimum Progress/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 101A through 101J
- 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 obtain a Registrar’s Fee Reduction Request. 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 sci-
ences, 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 within the 216-unit limit 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 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. 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 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, C114, 115, 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, Honors Programs, or Student Athletics. 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.
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 counseling in the areas of program planning, academic difficulty counseling, 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 3.75 grade-point average (GPA) in any one term, with at least 12 letter-graded units; or a 3.66 GPA and at least 56 grade points during the term. 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.

College of Letters and Science / College and Schools / 109

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 3.816 or better) for cum laude, the top 10 percent (GPA of 3.908 or better) for magna cum laude, or the top five percent (GPA of 3.956 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 Graduate Division, 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 Graduate Division 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
Kelsey C. Martin, MD, PhD, 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 faculty members participate in the Graduate Programs in Bioscience. Additional master’s and doctorate degrees are offered through the UCLA Graduate Division.

- Biomathematics MS, PhD
- Clinical Research MS
- Genetic Counseling MS
- Human Genetics MS, PhD
- Medicine MD
- Microbiology, Immunology, and Molecular Genetics MS, PhD
- Molecular and Medical Pharmacology MS, PhD
- Molecular, Cellular, and Integrative Physiology PhD
- Neuroscience PhD
- Physics and Biology in Medicine MS, PhD
- Psychiatry and Biobehavioral Sciences Clinical Psychology Internship Certificate

Articulated Degree Programs

- Medicine MD/Graduate Division health science major PhD
- Medicine MD/Public Health MPH

Concurrent Degree Programs

- Medicine MD/Management MBA
- Medicine MD/Public Policy MPP

MD Degree Program

The Doctor of Medicine (MD) degree program is a four-year medical curriculum that prepares students broadly for careers in research, practice, and teaching in the medical field of their choice. For details on the MD curriculum, see the current curriculum. For information about applying to the program, see the application web page or contact the Geffen School of Medicine Admissions Office, B27 Geffen Hall, Box 957035, Los Angeles, CA 90095-7035.

Articulated Degree Programs

The Geffen School of Medicine and the Graduate Division offer the Medical Scientist Training Program, an articulated degree program that allows students to earn both the MD and PhD in about eight years, depending on the course of study and research. The PhD may be awarded in one of several medical or social sciences fields.

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 third year of medical school.

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 third 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 spend their first two years at the UCLA campus, and complete their last two years of clinical work in specially designated training centers in medically underserved communities and at UCLA and affiliated hospitals. A distinguishing component of the program is the required medical research thesis.

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 program. Each year 18 students are admitted to the class. Students identify with one of two programs: PRIME UCLA-Westwood or PRIME UCLA-CDU.

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
Jayathi Y. Murthy, 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 program, 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 a great 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 traditional lectures, hands-on experience in the school makerspace and laboratories, and assignments 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 must uphold high ethical standards in creating and managing technology, and is committed to training engineers from diverse backgrounds. 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 the school and 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 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 MEngr, online MS, Engr
- 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
- Materials Engineering BS
- Materials Science and Engineering MS, PhD
- Mechanical Engineering BS, MS, PhD

Concurrent Degree Program
Computer Science MS/Management MBA

Undergraduate Minors
Bioinformatics
Environmental Engineering
Undergraduate Admission

Applicants for admission to the school must satisfy the UC admission requirements as outlined in 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 2019 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 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 to satisfy the admission requirement, but to be competitive the applicant must take a C++ 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 meet the admission requirement, but lack of a MATLAB course to satisfy the admission requirement, but to be competitive the applicant must take a C++ 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.

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, 3DS, 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; a combination of a score of 720 or better on the SAT Reasoning Test, Writing section (last administered in January 2016) and superior performance on the English Composition 3 Proficiency Examination; completing a course equivalent to English Composition 3 with a C or better grade (a C− or Passed grade is not acceptable).

Degree Requirements

<table>
<thead>
<tr>
<th>University Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Entry-Level Writing or English as a Second Language</td>
</tr>
<tr>
<td>2. American History and Institutions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Unit</td>
</tr>
<tr>
<td>2. Scholarship</td>
</tr>
<tr>
<td>3. Academic Residence</td>
</tr>
<tr>
<td>4. Writing Requirement</td>
</tr>
<tr>
<td>Writing I</td>
</tr>
<tr>
<td>Engineering Writing</td>
</tr>
<tr>
<td>5. Technical Breadth</td>
</tr>
<tr>
<td>6. Ethics Requirement</td>
</tr>
<tr>
<td>7. General Education</td>
</tr>
<tr>
<td>Foundations of Arts and Humanities</td>
</tr>
<tr>
<td>Foundations of Society and Culture</td>
</tr>
<tr>
<td>Foundations of Scientific Inquiry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Department Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Preparation for the Major</td>
</tr>
<tr>
<td>2. The Major</td>
</tr>
</tbody>
</table>

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.
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).

**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.

Writing courses also approved for general education credit may be applied toward 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 minor or 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 Graduate Division 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. 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 3.7 grade-point average (GPA) in any one term, with at least 15 units (12 units of letter grade). Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete or a Not Passed (NP) 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 3.752 or better) for cum laude, the top 10 percent (GPA of 3.871 or better) for magna cum laude, and the top five percent (GPA of 3.934 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 3.752 GPA for *cum laude*, 3.871 for *magna cum laude*, and 3.934 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.

**Tau Beta Pi**

The UCLA chapter of *Tau Beta Pi*, the national engineering honor society, encourages high scholarship, supplies volunteer tutors, and offers many services and programs to foster a spirit of liberal culture in engineering colleges.

**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.

**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 28 percent of the undergraduate and 23 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), recognizing that women in engineering are still a minority, has established a UCLA student chapter that sponsors field trips and engineering-related speakers (often professional women) to introduce the various options available to women engineers. The UCLA chapter of SWE, in conjunction with other Los Angeles schools, also publishes an annual résumé book to aid women students in finding jobs; and presents a career day for high school students.

**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**

**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.
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 Master of Engineering (MEng) degree is granted to graduates of the Engineering Executive Program, a two-year work-study program consisting of graduate-level professional courses in the management of technological enterprises.

Engineer Degree

The school offers an Engineer (Engr) degree at a level equivalent to completion of preliminaries in the PhD program. The Engineer degree represents considerable advanced training and competence in the engineering field but does not require the research effort involved in a PhD dissertation.

Requirements for the Engineer degree are identical to those of the PhD degree up to and including the oral preliminary examination, except that the Engineer degree is based on coursework. The minimum requirement is 15 (at least nine graduate) courses beyond the bachelor’s degree, with at least six courses in the major field (minimum of four graduate courses) and at least three in each minor field (minimum of two graduate courses in each).

The PhD and Engineer degree programs are administered interchangeably, so that a student in the PhD program may exit with an Engineer degree or pick up the Engineer degree en route to the PhD degree; similarly, a student in the Engineer degree program may continue to the PhD after receiving the Engineer degree. The time spent in either of the two programs may also be applied toward the minimum residence requirement and time limitation for the other program.

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 Graduate Division. Major and minor fields may have additional course and examination requirements. For more information, contact the individual departments.

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 instrumentation, biomedical signal and image processing, biosystems science and engineering, medical imaging informatics, molecular cellular tissue therapeutics, 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 structural/earthquake engineering), transportation engineering

Computer Science Department

Artificial intelligence, computational systems biology, computer network systems, 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 mathematics (established minor field only), applied plasma physics (minor field only), design, robotics, and manufacturing (DROM), fluid mechanics, micro-nano engineering, structural and solid mechanics, systems and control, thermal science and engineering (TSE)

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 mini-
mum 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.

**Admission**

In addition to meeting the requirements of the Graduate Division, applicants to the Samueli School of Engineering and Applied Science graduate programs 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 the proficiency in English requirements for international graduate students, see Graduate Admission in Graduate Study.

To submit a graduate application, see application for graduate admission.

**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 necessarily 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.

---

**Herb Alpert School of Music**

Eileen L. Strempel, DM, Dean

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 program for Global Jazz Studies—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 three 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.

Information regarding academic programs is available from the Office of Student Affairs, 2520 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
- Music BA, MA, MM, CPhil, DMA, PhD
- Music Composition BA
- Music Education BA
- Music History and Industry BA
- Music Performance BM
- Musicology BA, MA, CPhil, PhD

Undergraduate Minors

- Ethnomusicology
- 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:

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.

<table>
<thead>
<tr>
<th>Degree Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>University Requirements</strong></td>
</tr>
<tr>
<td>1. Entry-Level Writing or English as a Second Language</td>
</tr>
<tr>
<td>2. American History and Institutions</td>
</tr>
<tr>
<td><strong>School Requirements</strong></td>
</tr>
<tr>
<td>1. Unit</td>
</tr>
<tr>
<td>2. Scholarship</td>
</tr>
<tr>
<td>3. Academic Residence</td>
</tr>
<tr>
<td>4. Writing Requirement</td>
</tr>
<tr>
<td>Writing I</td>
</tr>
<tr>
<td>Writing II</td>
</tr>
<tr>
<td>5. Quantitative Reasoning</td>
</tr>
<tr>
<td>6. Foreign Language</td>
</tr>
<tr>
<td>7. Diversity</td>
</tr>
<tr>
<td>8. General Education</td>
</tr>
<tr>
<td>Foundations of Arts and Humanities</td>
</tr>
<tr>
<td>Foundations of Society and Culture</td>
</tr>
<tr>
<td>Foundations of Scientific Inquiry</td>
</tr>
<tr>
<td><strong>Department Requirements</strong></td>
</tr>
<tr>
<td>1. Preparation for the Major</td>
</tr>
<tr>
<td>2. The Major</td>
</tr>
</tbody>
</table>

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

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, 3DS, 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 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, 3IAL
- 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.

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.

<table>
<thead>
<tr>
<th>General Education Requirements</th>
</tr>
</thead>
<tbody>
<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 Practice1 course</td>
</tr>
<tr>
<td>Total = 15 units minimum</td>
</tr>
<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/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>Total = 8 units minimum</td>
</tr>
<tr>
<td><strong>Total GE</strong> ....................8 courses/38 units minimum</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 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, stu-
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 and no more than 58 units of upper-division courses.

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, 2520 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 3.8 grade-point average (GPA) for less than 16 units of work (3.7 GPA for 16 or more units), with at least 12 letter-graded units. 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 3.886 or better) for *cum laude*, the top 10 percent (GPA of 3.941 or better) for *magna cum laude*, or the top five percent (GPA of 3.963 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 Graduate Division.

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 the 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
Anderson Graduate School of Management
G415 Marion Anderson Hall
310-825-7982

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 an Executive MBA program designed for working managers who are moving from specialized areas into general management, and a three-year Fully Employed MBA program for emerging managers. The school also offers the UCLA-NUS Global Executive MBA degree in partnership with the National University of Singapore (NUS) Business School that prepares participants for top positions in organizations around the world. 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 MBA
- Executive Master of Business Administration EMBA
- Fully Employed Master of Business Administration FEMBA
- Global Executive MBA for Asia Pacific GEMBA—dual degree program with National University of Singapore
- Business Analytics MS
- Management MS, CPhil, PhD
- Master of Financial Engineering MFE

Concurrent Degree Programs

- Management MBA/Computer Science MS
- Management MBA/Dentistry DDS
- Management MBA/Latin American Studies MA
- Management MBA/Law JD
Management MBA/Library and Information Science MLIS
Management MBA/Medicine MD
Management MBA/Nursing MSN
Management MBA/Public Health MPH
Management MBA/Public Policy MPP
Management MBA/Urban and Regional Planning MURP

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. More than 50 custom and open-enrollment programs are offered annually to leaders of today, both on campus and wherever they are in the world: on the go, online, and on demand.

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.
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 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 MS, PhD
- Community Health Sciences MPH-HP, MS, PhD
- Environmental Health Sciences MS, PhD
- Epidemiology MS, PhD
- Health Policy and Management EMPH, MS, PhD
- Healthcare Administration MHA
- Molecular Toxicology PhD
- Public Health MPH, DrPH

Articulated Degree Programs

- Public Health MPH/Latin American Studies MA
- Public Health MPH/Medicine MD

Concurrent Degree Programs

- Community Health Sciences MPH/Urban and Regional Planning MURP
- Environmental Health Sciences MPH/Urban and Regional Planning MURP
- Public Health MPH/African Studies MA
- Public Health MPH/Asian American Studies MA
- Public Health MPH/Law JD
- Public Health MPH/Management MBA
- Public Health MPH/Public Policy MPP
- Public Health MPH/Social Welfare MSW

Undergraduate Minor

Public Health

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 Graduate Division. 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 academic boundaries to promote cooperative exchange across disciplines. The following interdisciplinary centers 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 Environmental Genomics

The Center for Environmental Genomics was established in May 2003 in partnership with the Jonsson Comprehensive Cancer Center. The goal of the center is to bring together experts from a variety of fields—including cancer, environmental health, epidemiology, biostatistics, human genetics, pathology, and pharmacology—to investigate the molecular mechanisms by which environmental agents, such as air pollutants and radiation, interact with genetic predisposing factors to cause disease. A better understanding of these processes paves the way not only for targeted drug therapies, but also for targeted public health efforts to reduce environmental exposures in high-risk populations. Environmental genomics helps prevent diseases rather than waiting to cure them once they have occurred.

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 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, now 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-equip it to inform policymakers of the most effective 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 Center for Prevention Research

The UCLA Center for Prevention Research conducts prevention research that addresses the needs of children, adolescents, young adults, and their families. The center is a partnership of the Fielding School, Geffen School of Medicine Pediatrics Department, and a wide range of community partners. The center is innovative in its approach to community service, partnering with ethnically and economically diverse communities in Los Angeles County to identify opportunities for the center to provide technical support to community groups for program implementation and assessment. In addition, the center has partnerships with the Los Angeles Unified School District, Los Angeles County Department of Health Services, and other local groups.

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

Gary M. Segura, PhD, 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 nongovernmental 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:

- Public Affairs BA
- Public Policy MPP
- Social Welfare MSW, PhD
- Urban and Regional Planning MURP
- Urban Planning PhD

Concurrent Degree Programs

- Public Policy MPP/Law JD
- Public Policy MPP/Management MBA
- Public Policy MPP/Medicine MD
- Public Policy MPP/Public Health MPH
- Public Policy MPP/Social Welfare MSW
- Social Welfare MSW/Asian American Studies MA
- Social Welfare MSW/Law JD
- Social Welfare MSW/Public Health MPH
- Urban and Regional Planning MURP/Architecture MArch
- Urban and Regional Planning MURP/Latin American Studies MA
- Urban and Regional Planning MURP/Law JD
- Urban and Regional Planning MURP/Management MBA
- Urban and Regional Planning MURP/Public Health MPH

Undergraduate Minors

- Gerontology
- Public Affairs
- Urban and Regional Studies

Obtain brochures about the school undergraduate programs from the department offices, 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.

Degree Requirements

University Requirements
1. Entry-Level Writing or English as a Second Language
2. American History and Institutions

School Requirements
1. Unit
2. Scholarship
3. Academic Residence
4. Writing Requirement
   Writing I
   Writing II
5. Quantitative Reasoning
6. Foreign Language
7. Diversity
8. General Education
   Foundations of Arts and Humanities
   Foundations of Society and Culture
   Foundations of Scientific Inquiry

Major Requirements
1. Preparation for the Major
2. The Major

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.

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 including the final 12 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.

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, 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, 3DS, 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 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 com-
petency 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.

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.
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 worlds. 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 major 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 major 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 com-
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 3.75 grade-point average (GPA) in any one term, with at least 12 letter-graded units; or a 3.66 GPA and at least 56 grade points during the term. 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 3.816 or better) for cum laude, the top 10 percent (GPA of 3.908 or better) for magna cum laude, or the top five percent (GPA of 3.956 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 the 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.

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 dispossessions of our times, in the university and in our cities, across the global south and global north.

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.

**Latino Policy and Politics Initiative**

The Latino Policy and Politics Initiative (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.

**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.

**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.

**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.

---

**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 contem-
temporary art and related fields. The Design|Media Arts Department focuses on digital media and offers a comprehensive, multi-disciplinary 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 MArch, 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
- 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.

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 Exten-
## Degree Requirements

### University Requirements
1. Entry-Level Writing or English as a Second Language
2. American History and Institutions

### School Requirements
1. Unit
2. Scholarship
3. Academic Residence
4. Writing Requirement
   - Writing I
   - Writing II
5. Quantitative Reasoning
6. Foreign Language
7. Upper-Division Nonmajor Courses
8. Diversity
9. General Education
   - Foundations of Arts and Humanities
   - Foundations of Society and Culture
   - Foundations of Scientific Inquiry

### Department Requirements
1. Preparation for the Major
2. The Major

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.

---

### 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 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, 3DS, 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).

Writing II courses also approved for general education may be applied toward 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
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
- Third course from either subgroup

Total = 15 units minimum

**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.

**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 propose 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 3.8 grade-point average (GPA) for less than 16 units of work (3.7 GPA for 16 or more units), with at least 12 letter-graded units. 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 3.861 or better) for cum laude, the top 10 percent (GPA of 3.905 or better) for magna cum laude, or the top five percent (GPA of 3.947 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 Graduate Division, 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 Graduate Division.

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 the 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, ArtSci Center, cityLAB, Conditional Space Studio, Counterforce Lab, Experiential Technologies Center, Game Lab, Grunwald Center for the Graphic Arts, NOW Institute, 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:

- Dental Surgery DDS
- Oral Biology MS, PhD

Articulated Degree Programs

- Oral Biology MS/Dentistry DDS
- Oral Biology MS/Dentistry Certificate
- Oral Biology PhD/Dentistry Certificate
- Oral Biology PhD/Dentistry DDS

Concurrent Degree Programs

- Dentistry DDS/Management MBA

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 Curriculum

For details on the three-year pre-dental curriculum, see Career Center pre-health.
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 anesthesiology 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, 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 minor:

Education MA, MEd, EdD, PhD
Educational Administration Joint EdD with UC Irvine
Education and Social Transformation BA
Information Studies PhD
Library and Information Science MLIS, accredited by American Library Association
Special Education Joint PhD with California State University, Los Angeles

Articulated Degree Programs

Education MEd/Latin American Studies MA
Library and Information Science MLIS/Latin American Studies MA
Concurrent Degree Programs
Education MEd, MA, EdD, or PhD/Law JD
Library and Information Science MLIS/Management MBA

Credential Programs
The school offers two credential programs accredited by the California Commission on Teacher Credentialing:
- Preliminary Administrative Services Credential
- Teacher Credential

Undergraduate Minor
Education Studies

Undergraduate Admission

Admission as a Freshman
Freshmen are admitted with a declared pre-major in the College of Letters and Science. See Curricula and Courses for information on applying to the major.

Admission as a Junior
Transfer students are admitted directly to the School of Education and Information Studies.

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.

Degree Requirements

University Requirements
1. Entry-Level Writing or English as a Second Language
2. American History and Institutions

School Requirements
1. Unit
2. Scholarship
3. Academic Residence
4. Writing Requirement
   - Writing I
   - Writing II
5. Quantitative Reasoning
6. Foreign Language
7. Diversity
8. General Education
   - Foundations of Arts and Humanities
   - Foundations of Society and Culture
   - Foundations of Scientific Inquiry

Major Requirements
1. Preparation for the Major
2. The Major

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, 3DS, 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).

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– 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 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, 3IAL
- 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.

<table>
<thead>
<tr>
<th>General Education Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundations of the Arts and Humanities</td>
</tr>
<tr>
<td>Literary and Cultural Analysis</td>
</tr>
<tr>
<td>Philosophical and Linguistic Analysis</td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis and Practice</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Foundations of Society and Culture</td>
</tr>
<tr>
<td>Historical Analysis</td>
</tr>
<tr>
<td>Social Analysis</td>
</tr>
<tr>
<td>Third course from either subgroup</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Foundations of Scientific Inquiry</td>
</tr>
<tr>
<td>Life Sciences</td>
</tr>
<tr>
<td>Physical Sciences</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</td>
</tr>
<tr>
<td>Total GE</td>
</tr>
</tbody>
</table>

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 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 sat-
isfactorily completed. See the Education and Social Transformation major 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 the Education and Social Transformation major 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 require—ment 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 3.75 grade-point average (GPA) in any one term, with at least 12 graded units. 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 3.816 or better) for *cum laude*, the top 10 percent (GPA of 3.908 or better) for *magna cum laude*, or the top five percent (GPA of 3.956 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**

Admission criteria established by the UCLA Graduate Division 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 scholastic grade-point average of 3.0 (on a 4.0 scale) or better—or its equivalent if the letter grade system is not used—is required for the last 60 semester units or last 90 quarter units of undergraduate study and in any postbaccalaureate study. Additional requirements for International Applicants are explained in Graduate Study. See the Graduate Division 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 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 Improving Child Care Quality

The Center for Improving Child Care Quality (CICCQ) conducts high-quality, policy-relevant research, with focus on improving the early care and education environments of young children. Utilizing expertise in the areas of child development, professional development, child care quality, attachment, and observational and survey research methodology, CICCQ conducts basic, applied, and policy-driven research at the local, state, and national levels. CICCQ takes a collaborative approach to the evaluation process, building relationships with community partners to inform research, practice, and professional development.

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 Study of Evaluation/National Center for Research on Evaluation, Standards, and Student Testing

The Center for Study of Evaluation (CSE)/National Center for Research on Evaluation, Standards, and Student Testing (CRESST) is devoted to educational research, development, training, and dissemination. CSE/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.

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.
Digital Cultures Laboratory
The Digital Cultures Laboratory (DCL) offers a unique, people-focused analysis of new technologies as they spread across the world. Faculty members and students examine and discuss the means by which new media technologies impact economics, cultures, politics, labor, and the environment through our collaborations with global partners. They share their insights through digital platforms, monthly blog posts, interviews, consultancies, and collaborative research projects.

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.

School of Law
Jennifer L. Mnookin, JD, PhD, 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, 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; 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 visit campus 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 SJD
- Juris Doctor JD
- Master of Laws LLM
- Master of Legal Studies MLS

Concurrent Degree Programs

- Law JD/African American Studies MA
- Law JD/American Indian Studies MA
- Law JD/Education MEd, MA, EdD, or PhD
- Law JD/Management MBA
- Law JD/Philosophy PhD
- Law JD/Public Health MPH
- Law JD/Public Policy MPP
- Law JD/Social Welfare MSW
- Law JD/Urban and Regional Planning MURP

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).

Jurs 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

Students must have received a bachelor’s degree from a university or college of approved standing before beginning work in the school. Students are required to take the Law School Admission Test (LSAT), although students concurrently applying to or already in a UCLA graduate program may submit their Graduate Record Exam (GRE) score in lieu of an LSAT score.

The school seeks to admit students of outstanding intellectual ability who 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 School of Law in significant part because of the school’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 LSAT (or GRE) scores. It also recognizes in its evaluation that other factors and attributes contribute greatly to a person’s ability to succeed as a law student and lawyer. When assessing academic promise and achievement, the applicant’s entire file is considered, including letters of recommendation; whether economic, physical, or other challenges have been overcome; scholarly achievements such as graduate study, awards, or publications; and the rigor of the undergraduate educational program.

In addition, the school considers attributes that may contribute to assembling a diverse class. Special emphasis is placed on socioeconomic disadvantage in the evaluation. Also considered are work experience and career achievement, community or public service, career goals (with particular attention to the likelihood that applicants will represent those in underrepresented communities), significant hardships overcome, 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 significantly diversify the student body or make a distinctive contribution to the school 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 and operations.

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 pioneering week-long orientation program that immerses them in the fundamentals of the law school learning process. From there they embark on a formative first year of courses that historically have laid the foundation for law of all kinds: civil procedure, constitutional law, contracts,
criminal law, and property and torts. In addition, an elective on law through scholarship in the second semester serves as a gateway to the upper-division curriculum.

In the second and third years, students have an opportunity to engage in a number of different fields of law and law-related study. All of the courses in the second- and third-year curricula are elective, with the exception of a mandatory course in professional responsibility, a substantial analytical writing requirement, and six units of experiential coursework.

**Master of Laws Degree**

The School of Law offers a [Master of Laws](#) (LLM) degree program for international and domestic law school graduates who wish to pursue a year of graduate legal education. The program allows students to specialize their studies in fields such as entertainment law, international and comparative law, and four separate business law subjects; or to design their own specialization in a field of their choice.

**Master of Legal Studies Degree**

The [Master of Legal Studies](#) (MLS) degree program is designed for non-lawyer professionals in business, government, and the nonprofit sector who seek to advance their careers and capabilities by obtaining an advanced degree and a deep understanding of the legal and regulatory issues that impact their industry or field of interest. Full-time students can finish the degree in one academic year, part-time students may take as many as four years. An MLS degree does not entitle the holder to sit for the bar exam or become a licensed lawyer.

**Academic Specializations for JD Degree**

**Business Law and Policy**

The Business Law and Policy specializations are designed for students who wish to focus their schooling in a particular area of business law and ultimately earn a certificate of completion with their degree. Students may choose from two specializations: business law and taxation. Approximately 70 courses and seminars are offered. In addition, there are two recommended tracks: corporate law and bankruptcy and commercial law, which offer additional guidance to students in course selection for the business law specializations. 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.

**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, and Technology Law and Policy**

Los Angeles is the center of the entertainment industry. The 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.

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
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.

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 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

Los Angeles is the center of the entertainment industry. The specialization offers the most comprehensive, advanced, and innovative approach to the study of entertainment and media law in the world. Students who fulfill the requirements have a solid grounding in the law, custom, 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

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

Center for Immigration Law and Policy

The Center for Immigration Law and Policy supports UCLA Law’s nationally renowned immigration scholars and enhances the school’s existing and wide-ranging immigration programs, which include the Immigrant Family Legal Clinic at the Robert F. Kennedy Community Schools in Los Angeles; service-learning trips to Tijuana, Mexico and the border region of Texas; and the Immigrants’ Rights Policy Clinic. The center publishes briefings and reports on immigration policy, hosts conferences and symposia featuring top national scholars, and collaborates with Southern California organizations working in the field.

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 addresses a wide spectrum of issues in criminal law with a vigorous program of education, policy work, and research. Areas of focus include police and digital surveillance, the relationship between criminal law and immigration enforcement, trial and appellate advocacy, criminal defense, expert witnesses and wrongful convictions, sentencing, the death penalty, fines, prison law, collateral consequences of criminal convictions and prisoner reentry, juvenile justice, international and transnational crimes, criminal justice reform in the U.S. and abroad, and critical race studies.

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 only law schools in the country to offer its faculty members the support of trained statisticians to further empirical research. The Empirical Research Group (ERG) is a methodology-oriented research center that specializes in the design and execution of quantitative research in law and public policy, and enables faculty members to include robust empirical analysis in their legal scholarship. Articles and reports published by faculty members working with ERG have covered topics as diverse as bankruptcy, legal aid, pollution prevention, tax policy, gay rights, the living wage, and campaign finance disclosure. Articles, reports, working papers, and supporting data are posted on the ERG website. In addition to faculty scholarship, ERG trains law students as research assistants in empirical methods such as sampling, data collection, and statistics, 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 integration 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 non-profit 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 internship 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.
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 Tribal Legal Development Clinic and Tribal Appellate Court Clinic that involve students in projects such as constitution drafting, code development, and serving as law clerks for Native nation clients.

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.

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, founded with a visionary $20 million gift in 2017, trains human rights lawyers and leaders, generates vital scholarship, and develops programs for on-the-ground assistance to address the most pressing contemporary human rights concerns of our times—including genocide studies, international migration and refugee crises, and post-conflict human rights. Through cross-disciplinary work, the institute explores the complex relationships between economic development, health, democracy, rule of law, and human rights. Students participate in a wide range of clinics, experiential programs, research opportunities, and fellowships.
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.

UCLA Institute for Law, Technology, and Public Policy

The UCLA Institute for Technology, Law, and Public 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.

Williams Institute on Sexual Orientation and Gender Identity Law and Public Policy

The Williams Institute on Sexual Orientation and Gender Identity Law and Public Policy is the only think tank of its kind dedicated to the field of sexual orientation law and public policy. The institute supports legal scholarship, legal research, policy analysis, and education regarding sexual orientation discrimination and other legal issues that affect lesbian and gay people. The institute began with the recognition that issues central to sexual orientation 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 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, clinical nurse specialists, or nurse administrators. 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 enroute 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:

- Nursing BS, MS, MSN, PhD
- Nursing Practice DNP

Concurrent Degree Program

- Nursing MSN/Management MBA

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 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.

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.

Degree Requirements

<table>
<thead>
<tr>
<th>University Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Entry-Level Writing or English as a Second Language</td>
</tr>
<tr>
<td>2. American History and Institutions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Unit</td>
</tr>
<tr>
<td>2. Scholarship</td>
</tr>
<tr>
<td>3. Academic Residence</td>
</tr>
<tr>
<td>4. Writing Requirement</td>
</tr>
<tr>
<td>Writing I</td>
</tr>
<tr>
<td>Writing II</td>
</tr>
<tr>
<td>5. Quantitative Reasoning</td>
</tr>
<tr>
<td>6. General Education</td>
</tr>
<tr>
<td>Foundations of Arts and Humanities</td>
</tr>
<tr>
<td>Foundations of Society and Culture</td>
</tr>
<tr>
<td>Foundations of Scientific Inquiry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Preparation for the Major</td>
</tr>
<tr>
<td>2. The Major</td>
</tr>
</tbody>
</table>

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.
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, 3DS, 3E, or 3SL with a C or better grade (a C– 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).

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).

Writing II courses also approved for general education credit may be applied toward 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 (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) 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

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 3A, 31A, 31AL
- Philosophy 31
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

<table>
<thead>
<tr>
<th>General Education Requirements</th>
</tr>
</thead>
<tbody>
<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</td>
</tr>
<tr>
<td><strong>Total</strong> = 15 units minimum</td>
</tr>
<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</strong> = 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><strong>Total</strong> = 18 units minimum</td>
</tr>
<tr>
<td><strong>Total GE</strong> .................. 10 courses/48 units minimum</td>
</tr>
</tbody>
</table>

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.
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 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. Applicants may contact the Nursing Student Affairs Office by e-mail.

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 3.75 grade-point average (GPA) in any one term, with at least 12 graded units. 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 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 3.816 or better) for cum laude, the top 10 percent (GPA of 3.908 or better) for magna cum laude, or the top five percent (GPA of 3.956 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 CPhil and 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, 3DS, 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– 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 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.

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:
General Education Requirements

Foundations of the Arts and Humanities
- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice
  - 5 courses
- Total = 25 units minimum

Foundations of Society and Culture
- Historical Analysis
- Social Analysis
- Third course from either subgroup
  - 1 course
- Total = 15 units minimum

Foundations of Scientific Inquiry
- Life Sciences
- Physical Sciences
  - 1 course
- 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.

- 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 (8 units minimum), one 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, 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 com-
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 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
Dean’s Honors are awarded each term to students who complete their program of study with distinction according to criteria established by the dean of the school.

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 3.912 or better) for cum laude, the top 10 percent (GPA of 3.951 or better) for magna cum laude, or the top five percent (GPA of 3.981 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 Graduate Division. 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 the 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 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. They introduce first-years to topics of intellectual importance and enable them to participate in critical discussion of these topics with a small group of peers. The seminar series takes its name from the motto of the University of California: 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 all 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 M146) 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.

**AEROSPACE STUDIES – AIR FORCE ROTC**

College of Letters and Science

218 Student Activities Center

Box 951611

Los Angeles, CA 90095-1611

Aerospace Studies – Air Force ROTC

310-825-1742

AFROTC e-mail

Grant M. Fowler, MA, Lieutenant Colonel, Chair

Faculty Roster

Professor

Grant M. Fowler, MA, Lieutenant Colonel

Adjunct Assistant Professors

Trevon D. Jones, BS, Major

Kekaikuimauloa Nuuhiwa, BS, 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 the University of California in July 1920. Navy and Air Force units were established in 1938 and 1949, respectively.

This voluntary training in the Air Force ROTC program allows students to qualify for an officer’s commission in the Air Force while completing their college education. The ROTC curriculum 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 Aerospace Studies Department, 36 units of aerospace studies 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 and sophomores. All have leadership laboratories that teach leadership and management skills. All commissions are reserve commissions. Active duty obligation following commissioning varies depending on branch of service and designated career field or occupational specialty.

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.

**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, 20A, 20B, and 20C), 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, base 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.

**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 perspectives. 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 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 leading, understanding themselves, being good followers 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. Requisites: courses 1A, 1B, 1C, 20A, 20B, 20C. 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. Requisites: courses 1A, 1B, 1C, 20A, 20B, 20C. 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 and 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. Develops leader. P/NP or letter grading.
AFRICAN AMERICAN STUDIES

College of Letters and Science
1308 Rolfe Hall
Box 951545
Los Angeles, CA 90095-1545

Faculty Roster

Professors
Walter R. Allen, PhD (Allan Murray Carter Professor of Higher Education)
Devin W. Carbado, JD (Honorable Harry Pragerson 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 (Scott Waugh Endowed Professor of Social Sciences)
Robin D.G. Kelley, PhD (Gary B. Nash Endowed Professor of U.S. History)
Cheryl L. Keyes, PhD
Kathleen A. Lytle Hernández, PhD (Thomas E. Lifka Professor of History)
Steven D. Nelson, PhD
Pedro A. Noguera, PhD
Shana L. Redmond, PhD
Brenda Stevenson, PhD (Nickoll Family Endowed Professor of History)
Dominic A. Taylor, MFA
Sherod Thaxton, JD, PhD
Patricia A. Turner, PhD
Richard A. Varborough, PhD

Associate Professors
Bryonn R. Bain, JD
Scot D. Brown, PhD
Aisha K. Finch, PhD
Lorrie A. Frasure-Yokley, PhD
Sarah Haley, PhD
Peter J. Hudson, PhD
Gaye T. Johnson, PhD
Terence D. Keel, PhD
Uri G. McMillan, PhD
Safiya U. Noble, PhD
Jemima Pierre, PhD
Caroline A. Streeter, PhD

Assistant Professors
Karida L. Brown, PhD
Ugo F. Edu, PhD
Kyle T. Mays, PhD
Sobukwe O. Odinga, PhD
S.A. Smythe, PhD
Alden H. Young, 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/Law JD). 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

Preparation for the Major
Required: Two courses from African American Studies M5, 6, M10A.

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.

The Major
Required: Twelve upper-division courses as follows: (1) two history and/or literature courses selected from African American Studies M104A through M104D, M150D, M158A through M158E, M179A, (2) two upper-division breadth courses from any of the following departments or programs: American Indian Studies, Asian American Studies, Chicana/o and Central American Studies, or Gender Studies, and (3) a concentration of five courses in one of the following tracks and three courses in the other: (a) humanities—African American Studies M102, M103A, M103B, M103E, M104A through M104E, M107, M109, M111, CM135A, CM135B, M150D, M158A through M158E, M179A, 188A, 188B, C191, and (b) social sciences—African American Studies M114C, M118, M120, M144, M150D, M154C, M158A through M158E, M159P, M164, M165, M167, M172, M173, M176, M179A, 188A, 188B, C191, M194A, M194B.

Policies
No more than 8 graded units of African American Studies BA 195, 197, 198, and 199 may be applied toward the major.

Honors Program
African American Studies majors with grade-point averages of 3.5 or better are eligible for the honors option that requires the completion of a senior thesis under the guidance of an African American Studies faculty member. Students must take African American Studies 198 (independent study course) with an approved professor who oversees the thesis requirement. For more information, contact the student affairs officer in the department.
African American Studies Lower-Division Courses

1. Introduction to Black Studies. (3) Lecture, three hours; discussion, one hour. Survey of theories, conceptual frameworks, and key debates in black studies. Interpretation of how race structures notions of identity and meaning of blackness in relation to gender, power, and sexuality; essential role of African people in development of capitalism, liberalism, and democracy; what various disciplinary lenses and epistemologies (history, literature, sociology, geog- raphy, cultural studies, political theory, etc.) reveal about experiences of black people in modern world. Key thinkers and ideas from across humanit- ies and social sciences are highlighted. 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 on ways that notions of racial hier- archy have influenced U.S. strategic priorities, threat assessments, and military initiatives throughout Africa. Special attention to U.S. covert operations and secu- rity alliances in Africa. Examination of impact of U.S. security policies on peace, conflict, and governance in Africa. Focus on change and continuity in Black trans- national responses to U.S. security initiatives in Africa, particularly during Cold War and War on Terror. P/NP or letter grading.

M5. Social Organization of Black Communities. (5) (Same as Sociology M5.) Lecture, four hours; discuss- ion, one hour; field trips. Analysis and interpretation of social organization of black communities, with focus on origins and development of black commu- nities, competing theories and research findings, de- fining characteristics and contemporary issues. 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 Afro-American thinkers have interpreted experiences of blacks in U.S.; drawing from such fields as history, philosophy, and literature. Letter grading.

M7A-M7B-M7C. Elementary Yoruba. (4-4-4) (Same as International and Area Studies M7A-M7B-M7C.) Lecture, five hours; Conversation, one hour. 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 Yoruba grammar, with equal emphasis on reading, writing, conversation, and com- prehension. 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 Am- haric, 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.

M12A-M12B. African American Musical Heritage. (5-5) Formerly numbered M110A-M110B. (Same as Ethnomusicology M12A-M12B and Global Jazz Studies M12A-M12B.) Lecture, four hours; discussion, one hour. P/NP or letter grading. M12A. Sociocultural history and survey of African American music covering Africa and its impact on Americas; music of 17th through 19th centuries; minstrelsy and its impact on representation of blacks in film, television, and theater; religious music, including hymns, spirituals, and gospel; black musical plays; jazz; blues; soul, funk, hip-hop; and sym- biotic relationship between recording industry and ef- fects of cultural politics on pop music pro- ductions.

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 for open credit to students with credit for course M118. Exploration of issues in retention at UCLA through lens of student-initiated and student-run pro- grams, efforts, activities, and services. Focus on pop- ulations with historically low graduation rates targeted by Campus Retention Committee. May not be applied toward major/minor elective require- ments. 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.

89H. Honors Contracts. (1) Tutorial, three hours. Limited to 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 and led by course lecture instructor. May be applied toward honors credit for eligible stu- dents. Honors contract noted on transcript. P/NP or letter grading.

99. Upper-Division Courses


M103A. African American Theater History: Slavery to Mid-1800s. (4) (Same as Theater M103A.) Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American art- ists 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 ju- niors/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.

M103E. Modern African American Drama: Harlem Renaissance to Black Arts Movement. (4) (Same as Theater M103E.) Lecture, three hours. Survey and ex- amination of African American plays from 1920s until modern times. Emphasis on works by playwrights and directors that engaged in political activism and critical issues in African American culture. P/NP or letter grading.
140. Radical Black Imaginaries: Politics, Identity, and Struggle. (4) Lecture, four hours. Exploration of some more powerful visions for freedom, liberation, and racial justice in African diasporic world, with focus on political struggles, intellectual movements, and creative expressions. How did Black Imagination during last century. Following of black diasporic citizens from Accra to Harlem to Havana as they struggled for freedom within and beyond movements against colonial oppression, for Pan-Africanism, feminism, and Negritude, and through utopian art forms like Afro-Futurism. Consideration of how black activists, artists, and intellectuals in various parts of globe interwove imagination and enact real possibilities for sovereignty and liberation both at home and abroad. Letter grading.

M141. African American Women's History. (4) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer 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 chapters in American history, exploration of key themes, including gender formation, sexuality, labor and class, collective action, gender and sexual violence, reproduction, and role of Black women in constructing race of oppressed black women’s historical lives? How is difference constructed through interrelated and overlapping ideologies of race and gender? How do historians and Black women’s historical lives and what are challenges to such discoveries? Examination of black women’s individual and collective struggles for freedom from racism, sexism, and heteronormativity, as well as Black women’s participation in and challenge to social movements, including suffrage, women’s liberation, civil rights, and black power. Examination of black women’s intellectual history, including 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 historical and contemporary development of modern prison industrial complex in U.S., with attention to impact of prison industrial complex on immigrants, including undocumented residents, homeless populations, women, African Americans, and transgender nonconforming and lesbian, gay, bisexual, and transgender communities. P/NP or letter grading.

M159P. Constructing Race. (4) (Same as Anthropology M141P and Asian American Studies M149P.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical examination of African American search in first half of 20th century for national/group cohesion through collective hunger and identity. Focus on activist movements and ideological self-definition. P/NP or letter grading.

M159R. Constructing Race. (4) (Same as Anthropology M149R and Asian American Studies M149R.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical examination of African American search in first half of 20th century for national/group cohesion through collective hunger and identity. Focus on activist movements and ideological self-definition. P/NP or letter grading.

M159E. African American Nationalism in First Half of 20th Century. (4) (Same as History M150E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical examination of African American search in first half of 20th century for national/group cohesion through collective hunger and identity. Focus on activist movements and ideological self-definition. P/NP or letter grading.

M159B-M159C. Introduction to Afro-American History. (4) (4) (Same as History M150B-M150C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical examination of African American search in first half of 20th century for national/group cohesion through collective hunger and identity. Focus on activist movements and ideological self-definition. P/NP or letter grading.

M165. Afro-American Experience in U.S. (4) (Same as Anthropology M165.) Lecture, three hours. Probationary introduction to the Afro-American experience in U.S. by presenting comparative and diachronic perspective on Afro-American experience in U.S. Focus on analysis of underlying racial divisions in workforce and how they evolved historically. Consideration of circumstances under which workers and unions have existed, organized 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. Afro-American Experience in U.S. (4) (Same as Anthropology M165.) Lecture, three hours. Probationary introduction to the Afro-American experience in U.S. by presenting comparative and diachronic perspective on Afro-American experience in U.S. Focus on analysis of underlying racial divisions in workforce and how they evolved historically. Consideration of circumstances under which workers and unions have existed, organized 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. Limited to juniors/ seniors. Exploration of relationship between race/ethnicity and labor movements in its popular form during Analy-
have organized people of color into unions in efforts to improve their wages and working conditions. Impact have organized people of color into unions in efforts to (Same as Memory and Displacement II. (4)

lived experience according to perspectives and inter cues to remembering cannot be seen? Introduction to make videos about memory in places where direct trauma, exile, and migration. What does it mean to practices of diasporic filmmakers who have grappled inar, three hours. Video production course, with em-

racial campaigns for workplace and economic justice. Focus on need to increase delivery of healthcare. Focus on need to increase (when scheduled). Requisite: Education 180. Research seminar designed to provide opportunity to combine theory and practice in study of human develop-

ment in educational contexts. Focus on relationship between theories of development, culture, and language. Letter grading.

194C. Culture, Communications, and Human Development Research Group Seminars (5) (Same as Education M131B1.) Seminar, three hours; laboratory, two hours (when scheduled). Requisite: 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.

194D. Culture, Gender, and Human Development Research Group Seminars (5) (Same as Education M131B2.) Seminar, three hours; laboratory, two hours (when scheduled). Requisite: 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.
190. 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.

195. Community or Corporate Internships in Afro-American Art. (4) Tutorial, four hours. Preparation: 3.0 grade-point average in major. Limited to junior/senior majors. Internship in supervised setting in community agency or business. Students meet on regular basis with faculty sponsor and provide biweekly reports of their experience. Eight units may be applied toward major requirements. May be repeated for credit. Individual contract required. Requisite: supervising faculty member required. P/NP or letter grading.

M195CE. Comparative Approaches to Community and Corporate Internships. (4) (Same as 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. 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 relevant to research. Individual contract required with supervising faculty member required. P/NP or 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. Short-term research project culminating in term paper in African American studies of relevant research area. Research may be part or totally in relation to faculty member's research. May be repeated for credit. Individual contract required. Letter grading.

197. Independent Study in Afro-American Studies. (2 to 8) Tutorial, four hours. Preparation: 3.0 grade-point average in major. Limited to juniors/senior. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangibles 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/senior. 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 with faculty member who directs study. Preparation: 3.0 grade-point average in major. Limited to juniors/senior. Supervised individual research or investigation of large project under guidance of faculty mentor. Cumulative paper or project required. Eight units may be applied toward major requirements. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Graduate Courses

M200A. Advanced Historiography: Afro-American. (4) (Same as History M200A) Seminar, three hours. May be repeated for credit. Review of major problems in the field. Focus on topics considered may include capitalism and question of slavery, law, regulations, legal pluralism in organization of market and nations; uneven development and nature of Black sovereignties. Examination of critical issues between music and myriad of issues unthreatened by this trend in scholarly study of black music. Letter grading.

M202. Critical Theory of African Diaspora. (4) (Same as Anthropology M245.) Seminar, four hours. Introduction to a variety of theories that underlie articulation of construct of African diaspora. Structured through understanding of African diaspora as historical formation, with focus on African diaspora as distinct intellectual project. Exploration of ways scholars have conceptualized and theorized diasporic condition of Black peoples. Consideration of who belongs to African diaspora community, and how this community is imaged. S/U or letter grading.


CM213XP. Narratives of Justice: Disrupting School-to-Prison Pipeline—Arts, Activism, and Agency. (4) (Formerly numbered CM213.) (Same as Education CM229B.) Lecture, four hours; discussion, one hour. Exploration of policing of bodies, art, and activism, and other forms of agency engaging school-to-prison pipeline. Concurrently scheduled with course CM113XP. S/U or letter grading.

CM213B. Legislative Theatre for Race and Gender Justice. (Same as World Arts and Cultures CM213B.) 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 communities in order to research and influence public policy and legislative change. Students and campus partners create and perform legislative theatre addressing issues of gender, sexual orientation, 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 own original writings and performances developed in response to visiting scholars and community partners. Concurrently scheduled with course CM113B. S/U or letter grading.

CM235A. African American Art before 1900. (4) (Same as Art History CM235A.) Lecture, three hours. Detailed inquiry into work of key African American artists whose works provide insightful and critical commentary about major features of African American life and society. Concurrently scheduled with course CM135B. 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 in codification of modern black life in U.S. Concurrently scheduled with course CM135B. S/U or letter grading.

M240P. Assessment and Treatment of African American Families. (3) (Same as Psychiatry M240P) 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 guest form basis for supervisory evaluation and evaluation of consultant case work with African American children and families. Letter grading.

241. Special Topics in Afro-American Studies. (4) Lecture, four hours; discussion, one hour. Intensive research and study of major themes and issues in various areas of Afro-American studies. S/U or letter grading.

M256. Topics in African American Art. (4) (Same as Art History M236.) Seminar, three hours. Requisites: course CM235A or CM235B. Topics in African Amer-
ican art from 18th century to present. May be repeated for credit with consent of graduate adviser. 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 guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Readings and Tutorials. (4) Tutorial, to be arranged. Provides students with umbrella under which they can pursue specialized interests from which there is insufficient demand to warrant offering formal courses. S/U or letter grading.

597. Preparation for MA Comprehensive Examination. (4 or 8) Tutorial, to be arranged. Limited to graduate students. May not be applied toward MA course requirements. S/U grading.

598. Research for and Preparation of MA Thesis. (4 or 8) Tutorial, to be arranged. Limited to graduate students. May not be applied toward MA course requirements. S/U grading.

African Studies

Interdepartmental Program
College of Letters and Science
10256 Bunche Hall
Box 951487
Los Angeles, CA 90095-1487

Faculty Committee
Hannah C. Appel, PhD (Anthropology)
Edith Mukudi Omwami, PhD (Education)
Jemima Pierre, PhD (African American Studies, Anthropology)
Allen F. Roberts, PhD (European Languages and Transcultural Studies, World Arts and Cultures/Dance)
Stephanie B. Santana, PhD (Comparative Literature)
Paula A. Tavrow, PhD (Community Health Sciences)
Dominic R. Thomas, PhD (Comparative Literature, European Languages and Transcultural Studies)
W. Harold Torrence, PhD (Linguistics)
Hollian Wint, PhD (History)

Overview
The intellectual objective of the African Studies MA program is to provide graduate students with the opportunity to engage in intensive study and research on Africa on an interdisciplinary basis. The program offers African area courses in a wide range of disciplines, including the fine arts, social sciences, humanities, and professional fields. A concurrent degree program is also offered where students can work for the MA in African Studies and the Master of Public Health (MPH) at the same time.

Academic flexibility draws many students to the program. Because there are more than 50 active faculty members on campus with African interest and experience in many disciplines, students have multiple options to design individualized programs suited to their specific interests.

Information on the undergraduate major and minor in African and Middle Eastern Studies and the minor in African Studies can be found in the International and Area Studies section.

Graduate Major
African Studies MA

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 Studies MA/Master of Public Health

African Studies

Graduate Courses


201B. Africa and Professions. (4) Seminar, four hours. Overview of research methodologies in humanities and social sciences engaged in teaching and conduction of research on African Americans, the nation’s first interdisciplinary MA program in American Indian Studies was established here.
Undergraduate Study
The Bachelor of Arts (BA) degree and the undergraduate American Indian Studies minor offer a general introduction for students who anticipate advanced study at the graduate level in American Indian studies; ethnic studies; and the traditional disciplines or careers in research, administration, public service, and community service related to American Indian communities.

Graduate Study
The Master of Arts (MA) program draws primarily on existing courses in the participating departments, where research and research methodologies are of primary concern. Students are exposed to Indian-related research in a number of different disciplines; demonstration of research skills is required. Students graduate with the training they need to teach Native American studies or to serve in an administrative capacity in Indian programs or organizations. The MA program ranks among the top Indian studies programs in the country.

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 south-west, 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 community 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

Preparation for the Major
Required: American Indian Studies M10 and two courses from Anthropology 3, Gender Studies 10, Political Science 40, Statistics 12.

Policies
Each course must be completed with a grade of C or better.

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.

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, M155, Linguistics 114, (c) two history or law courses from American Indian Studies 140, 158, C170, History 149A, 149B, 1578, (d) one social sciences course from American Indian Studies C120, C121, C130, C175, C178, Anthropology 160A, or 162, (e) two expression culture courses from American Indian Studies 180, Art History 137, CM139A, C139B, English 106, Ethnomusicology 106A, IB4, 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, 148, 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)

Policies
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
The honors program is designed for American Indian Studies majors who are interested in carrying out an independent research project that culminates in an interdepartmental honors thesis of approximately 30 pages. The program provides students the opportunity to work closely with individual professors on an in-depth supervised research and writing project.

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.
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 (2.0 grade-point average), 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.

The Minor

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, 114Q, 158, 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

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 divergent patterns of political, linguistic, social, legal, and cultural change in postcontact period. P/NP or letter grading.

M15. Leadership and Student-Initiated Retention. (2) (Same as African American Studies M122.) Lecture, three hours; discussion, one hour; activity, one hour. Survey of selected Native American communities from pre-Western contact to contemporary period, with particular emphasis on early cultural diversity and divergent patterns of political, linguistic, social, legal, and cultural change in postcontact period. 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 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.

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 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 Central American 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 Native 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 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 successfully 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 project within Native American communities and organizations where students are mentored and supported by faculty members, other students, and project directors toward completing assigned service learning tasks 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 Settlement to Black-Lived and Indigenous Sovereignty. (4) (Same as African American Studies M123.) Lecture, four hours; discussion, one hour. Examination of how race was developed through experiences of African-American peoples and Indigenous peoples in U.S. and beyond. Examination of key episodes in history. Using articles, books, documentaries, and contemporary popular culture, examination of relationship between people of African descent and Indigenous people. Study takes broad, thematic approach. Topics include first encounters in Americas and ideologies that led to enslavement and dispossession; period of enslavement and indigenous removal in 19th century; mid-20th-century social movements; and contemporary manifestations, especially solidarity shown between Black Lives Matter and Dakota Access Pipeline protesters. P/NP or letter grading.


140. Federal Indian Law and Policy. (4) Lecture, four hours. Through readings, discussion, and Native guest lecturers, introduction to fundamental concepts and history of federal Indian law and policy. Investigation of contemporary policies and legal issues and exploration of Native responses to policy and law. Letter grading.
C145. Contemporary Indigenous Nations. (4) Seminar, three hours. Introduction to topics on contemporary indigenous nations, including social movements, social and cultural change and continuity, nation building, law and justice relations, economic development, education, international relations, comparative policy, colonialism, migration, national and social identities, and other issues and social cultural processes, seen as distinct from ethnicity, race, class, and gender. Focus on current conditions, social and cultural processes of indigenous nations. Concurrently scheduled with course C245. Letter grading.

158. Nation Building. (4) Lecture, three hours; fieldwork/research, nine hours. Limited 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 tribes. Current developments within indigenous nations, including restructuring government, developing economies, and asserting cultural sovereignty to be subject of research, and required community-based projects. Letter grading.


M162. Language Endangerment and Linguistic Revitalization. (4) (Same as Anthropology, M156.) Lecture, three hours; activity, one hour. Requires: course M10, Anthropology 4. Examination of causes and consequences of current worldwide loss of linguistic diversity and new efforts that members of threatened heritage language communities have produced in their attempt to revitalize these languages. Projected loss of as many 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 ideological change, and language shift away from smaller 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 diverse strategies and approaches for language revitalization, including immersion, language and culture classes, master-apprentice, interactive multimedia, mass media approaches, and language policy reform approaches. Evaluation of these measures and of very imagery used to discuss language endangerment. P/NP or letter grading.

CM168. Healthcare for American Indians. (4) (Same as Health Policy M168.) 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. 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 raise health status of American Indian people. Concurrently scheduled with course C268. Letter grading.

C170. 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 lectures. May be repeated for credit with topic change and consent of departmental chair. Concurrently scheduled with course C275. 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 with credit with topic and/or instructor change and consent of departmental 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. To understand goals and challenges of these laws, examination of series of cases from California sites. Concurrently scheduled with course C278. Letter grading.

180. 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 languages. Introduction to both phonological and grammatical structures, vocabulary, and cultural patterns of using language as symbolic guide to culture. May be repeated with language change and approval of interdepartmental chair. Letter grading.

M186. Indigenous Film. (5) (Same as World Arts and Cultures M187.) Lecture, four hours; discussion, one hour. Introduction to study of indigenous filmic images and representation. Selected ethnographic, documentary, animated, and feature films ranging from 1920 to present. P/NP or letter grading.

187. Special Topics in American Indian Studies. (4) Lecture, four hours. Variable topics selected from following: Myth and Ritual Societies; Contemporary American Indian Literature; Social Science Perspectives of American Indian Life; Law and American Indian; History of American Indians (cultural area); Dance and Music of American Indians (cultural area); American Indian Policy, Consult Set Schedule of Classes for topics and instructors. May be repeated twice for credit. Letter grading.

M187A. Special Topics in American Indian and Gender Studies. (4) (Same as Gender Studies M185A.) 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.

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 readings, paper presentations, class discussions, and/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 of greater depth than in 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.

195. Community Internships in American Indian Studies. (4) (Same as Anthropology, M204.) Tutorial, two hours; fieldwork, eight hours. Requires: course M10, Limited to juniors/seniors. Internship in supervised setting in community agency. Students meet on regular basis with instructor and supervised externship mentor. Designed for students who have completed at least one year of American Indian studies, have performed satisfactorily in a course in American Indian studies, and have demonstrated interest in and commitment to an internship. Students will provide periodic reports on their experience. Designed to combine academic experience to their original research/service efforts involving Native American communities. Participants meet with supervising faculty member required. P/NP or letter grading. Must 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

M200A. Advanced Historiography: American Indian Peoples. (4) (Same as History M200W.) Lecture, 90 minutes; seminar, 90 minutes. Introduction to culture-historical approaches to North American Indian concepts of history. Stereotypical approach to content and methodologies related to Native past that is interdisciplinary and multicultural in its scope. Letter grading.

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 societies, as these traditional and tribal contexts have been interpreted into contemporary literary texts (fiction, poetry, essay, and drama). Survey, from secondary sources, of interdisciplinary methodological 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 M244P and Sociology M275.) Seminar, three hours. Introduction to most important issues facing American Indians as individuals, as a group, and as an ethnic, tribal, and organizational 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 research. 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 research, and Individual contract with supervising faculty member required. P/NP or letter grading.
ical approaches with interdisciplinary approaches to American Indian studies and indigenous studies. S/U or letter grading.

202. Key Theories and Concepts in American Indi-
ian Studies. (4) Lecture, three hours. Addresses key intellectual movements and concepts (such as sovereignty, colonialism, decolonization, etc.) that are central to formation of American Indian/indigenous studies as discipline. Research and collabora-
tion with indigenous communities is highlighted as core requirement. Students will engage in research and development of existing research and case studies. These basic concepts are important for graduate students who will be analyzing and evaluating research conducted on and for indigenous peoples and governments. S/U or letter grading.

M207. Economic Principles and Economic Devel-
opment in Indigenous Communities. (4) Formerly numbered M207. (Same as Public Policy M270.) Seminar, two hours; discussion, one hour. Limited to graduate students. Familiarization with fundamental concepts, themes, and principles of economic develop-
ment. Focus on indigenous communities broadly and contrasted with other regions, countries, and communities. Introduction to important concepts such as opportunity cost, economic trade-offs, adverse se-
lection, and discount rates for students. Prerequisites: courses 10 and 11. Concurrently scheduled with M208. S/U or letter grading.

M208. Native American Languages and Discourses of Indigene-
yty. (4) (Same as Anthropology M208.) (Formerly numbered M208.) Seminar; three hours. Preparation: prior coursework in anthropological, linguistic, or American Indian studies. Close reading and discussion of books and articles on topics related to Native American languages and discourses of indigenous communities. Topics include critical linguistics, multilingual and indige-
nous language practices, language ideologies, politics and practices of publication and conceal-
ment, language revitalization, language and identity, language and construction of place, storytelling performance, community/academic collaboration, lan-
guage as intellectual property, linguistic expressions of indigeneity, and cultural sovereignty. Offers resources to understand status of indigenous languages in wide range of Native American communities. Students perform variety of roles in discussions, an develop book reviews, grant proposals, critical essays, and—where applicable—write a combination of their theses and dis-
sertations. S/U or letter grading.

C220. Working in Tribal Communities: Introduction. (4) Lecture, four hours. Through readings, discussion, and Native guest lecturers, introduction to and participa-
tion within Native American communities engaged in political, social, and cultural processes of change and preservation. Development of proposal for Native na-
tion-based community service learning project with course C120. S/U or letter grading.

C221. Working in Tribal Communities: Preparing for Fieldwork. (4) Lecture, four hours. Through read-
ings, discussion, Native guest lecturers, and project participation, introduction to rules of conduct and skills necessary to successfully work or carry out community service projects for Native American com-
munities and organizations. Concurrently scheduled with course C220. S/U or letter grading.

C222XP. Working in Tribal Communities: Commu-

nity-Engaged Learning. (4) Formerly numbered C222SL.) Seminar, one hour; fieldwork, four hours. En-
forced requisite: course C221. Recommended: course C220, C301. Students are part of community service learning project within Native American communities and organi-
izations where students are mentored and supported by faculty members, other students, and project direc-
tors. Students are responsible for assigned learning tasks and contributing to project activities. May be re-
peated with consent of instructor. Concurrently sched-
uled with course C122XP. Letter grading.

M228A-228B. Tribal Legal Systems. (228A: 3 or 4 or 228B: 1 or 2) Seminar, two hours. Course 228A is en-
forced requisite to 228B. Study of traditional and con-
temporary legal systems of Native American triba-
tions. Detailed examination of several different tribal systems, including Navajo, Cherokee, Iroquois, and Hopi, with emphasis on diversity of tribal legal re-
gimes, comparisons with Anglo-American legal system, changes in tribal systems during period of contact with non-Indians, and relationship between tribes’ legal systems and other aspects of their cul-
tures, such as religion and social structure. Indepen-
dent research paper with focus on contemporary or historic topics related to tribes’ legal systems. Prerequisite: Law 528. In Progress (228A) and S/U or letter (228B) grading.

C230. California Indian Strategies for Contempo-
rary Challenges. (4) Seminar, three hours. Through re-
search, discussion, and Native guest lecturers, intro-
duction to contemporary issues and processes of self-
directed social change and political, cultural, legal, and economic processes of nation building in contempo-

238A-238B. Tribal Legal Development Clinic. (238A: 3 or 4 or 238B: 1 or 2) Lecture, three hours. Course 238A is enforced requisite to 238B. Preparation: prior coursework in anthropological, linguistic, or American Indian studies. Reading and discussion of books and articles on topics related to contemporary issues in tribal legal development. Students are part of fieldwork in tribal communities working with tribes’ in house legal assistance and assist in development of tribal legal systems. Prerequisite: Law 528. In Progress (238A) and S/U or letter (238B) grading.

M267. Federal Indian Law II. (1 to 8) (Same as Law M382.) Lecture, three hours. 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 in land, cultural resources, hunting and fishing rights, water rights, and economic development. Special jurisdictional regimes estab-
lished 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 I. (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 in land, cultural resources, hunting and fishing rights, water rights, and economic development. Special jurisdictional regimes estab-
lished 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.

C268. Healthcare for American Indians. (4) (Same as Anthropology M268.) (Formerly numbered M268.) Lecture, two hours; discussion, one hour. Health care and inter-
vention research and intervention projects to improve health of American Indians and Native Alaskan populations through social and cultural processes of indigenous nations. Topics include health, traditional health beliefs, health practices, and health delivery systems in tribal communities. Native guest lecturers, readings, and class discussions. May be repeated with different topics/lecturers. S/U or letter grading.

C270. California Indian History. (4) Lecture, four hours. Introduction to California Indian history, specific tribal community histories, and/or contemporary California Indian history through readings, discussion, and Native guest lecturers. May be repeated with different topics/lecturers. S/U or letter grading.

M382.) Lecture, three hours. 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 in land, cultural resources, hunting and fishing rights, water rights, and economic development. Special jurisdictional regimes estab-
lished by federal statutes, such as Indian Child Welfare Act and Indian Gaming Regulatory Act, addressed. Concurrently scheduled with course C170. S/U or letter grading.

M272. Seminar: Cultural Property Law. (3 or 4) (Same as Law M514.) Seminar, three hours. Explora-
tion of identity, ownership, appropriation, and repatria-
tion of both tangible and intangible cultural property— those items that are of great significance to cultural heritage and cultural survival of people. Consideration of important issues of return of cultural property as means of maintaining group identity, self-determina-
tion, and collective rights. Examination of both inter-
national and domestic law governing these issues, ad-
dress legal questions. Overview of international cultural property law and potential impact of international agreements on interpretation of cultural property against need or desire for its use in cre-
ative expression or scientific advancement? Examina-
tion 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 cen-
tury, including those that impact and shape political sover-
ignty, economic development, constitu-
tional reform, membership criteria, 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 speakers, 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 understand goals and challenges of these laws, examination of series of cases from California sites. Concurrently scheduled with course C178. 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.


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
310-267-8667

Maxime Cannesson, MD, PhD, Chair
Daniel J. Cole, MD, Executive Vice Chair
Judi A. Turner, MD, PhD, Vice Chair, Education
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 pa-

tients, 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, 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.

ANTHROPOLOGY

College of Letters and Science
341 Haines Hall
Box 951553
Los Angeles, CA 90095-1553

Anthropology
310-825-2055
Department e-mail
C. Jason Throop, PhD, Chair
Erin K. Debenport, PhD, Graduate Vice Chair
Aomar Boum, PhD, Undergraduate Vice Chair

Faculty Roster

Professors
H. Samy Alim, PhD (David O. Sears Presidential Endowed Professor of Social Sciences)
Andrew Apter, PhD
H. Clark Barrett, PhD
Philippe I. Bourgois, PhD, in Residence (Richard D. and Ruth P. Walter Professor of Psychiatry)
P. Jeffrey Brantingham, PhD
M. Kamari Clarke, PhD
Jason P. De Leon, PhD
Alessandro Duranti, 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. Kelty, PhD
Paul V. Kroskrity, PhD
Richard G. Leslie, PhD (Marilyn Beadury-Corbett Endowed Professor of Mesoamerican Archaeology)
Nancy E. Levine, PhD
Purnima Manekkar, PhD
Joseph H. Madsen, PhD
Norma C. Mendoza-Denton, PhD
Kyeyoung R. Park, PhD
Susan E. Perry, PhD
David Delgado Shorter, PhD
Susan E. Slyomovics, 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
Jeanne E. Arnold, PhD
Nicholas G. Blurton Jones, PhD
Robert Boyd, PhD
Karen B. Brodkin, PhD
Carole H. Browner, PhD
Christopher B. Dorman, PhD
Marjorie Harness Goodwin, PhD
Sondra Hale, PhD
Allen W. Johnson, PhD
Gail E. Kennedy, PhD
Claudia I. Mitchell-Kernan, PhD
Philip L. Newman, PhD
Elinor Ochs, PhD
Sherry B. Ortner, PhD
Wendell H. Owstall, PhD
Merrick Posansky, PhD
Dwight W. Read, PhD
Joan B. Silk, PhD
Charles S. Stanish, PhD
Mariko Tamanai, PhD
Russell Thornton, PhD
Thomas S. Weisner, PhD
Johannes Wilbert, PhD

Associate Professors
Stephen B. Acabado, PhD
Hannah C. Appel, PhD

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
310-267-8667

Maxime Cannesson, MD, PhD, Chair
Daniel J. Cole, MD, Executive Vice Chair
Judi A. Turner, MD, PhD, Vice Chair, Education
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 pa-
Anthropology / 193

Abigail W. Bingham, PhD
Aomar Boun, PhD
Elizabeth A. Bromley, MD, PhD, in Residence
Erica A. Cartmill, PhD
Jessica R. Catellino, PhD
Erin K. Debenport, PhD
Min Li, PhD
Jessica W. Lynch, PhD
Jemima Pierre, PhD
Brooke A. Scelza, PhD
Gregson T. Schachner, PhD
Min Li, PhD
Erica A. Cartmill, 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, anthropology 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
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, paleo-ecology, 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 communication, 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 part of the world, but most notably in Africa, Latin America, 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, using current primary scientific literature, identification of appropriate sources, reading and understanding of papers, and discriminating research quality

Preparation for the Major

Required: Anthropology 1, 2, 3, 4.

Policies

Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

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 for up-to-date information regarding transfer selection for admission.

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 (100–119), 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, 150; (4) one upper-division methodology course selected from 110, CM110Q, C117, 126P, 135, 138P, M138Q, 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.
Policies
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
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. 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. 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. 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

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.

Policies
Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

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 for up-to-date information regarding transfer selection for admission.

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: archaeology (100–119), 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.

Policies
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
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. 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 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. Students should contact the departmental honors adviser early in their studies for more information.

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 anthropology fields listed above; four additional courses. Students are encouraged to concentrate their upper-division coursework within one field 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
Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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. Evolutionary processes and evolutionary past of human species. P/NP or letter grading.
2. Archaeology: Introduction. (5) Lecture, three hours; discussion, one hour; one field trip. Required as preparation for both bachelor’s degrees. General survey of field and laboratory methods, theory, and
major findings of anthropological archaeology, including case-study guest lectures presented by several campus archaeologists. 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 its development from a sociocultural perspective. Examples from societies around the 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 (when scheduled). Required as preparation for both bachelor's degrees. Introduction to study of communication from an anthropological perspective. Formal and linguistic methods compared with ethnographic-oriented methods focused on context-bound, temporal unfolding of communicative activities. Topics include language in everyday life and ritual events, socialization, literacy, multilingualism, miscommunication, 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. Exposes their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M67W. Making and Studying Modern Middle East. (5) (Same as Middle Eastern Studies M50CW) Lecture, three hours; discussion, one hour. Required. English lecture course on 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 an adjunct to lower-division lecture course. Exploration of topics of greater depth through supplemental readings, papers, or other activities, as defined by the 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, one hour. Limited to 30 students in College Honors Program. Designed as an 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, as defined by the instructor. May be applied toward honors credit for eligible students. 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 course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

Archaeology

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, Tylor, Frazer, Leakey, Piaget, and others. Consideration of how this influences ethnocentrism and Afrocentrism, sexism, racism, perception of deviance, and view of culture in general. P/NP or letter grading.

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 techniques, and other principles of archaeological analysis and interpretation. P/NP or letter grading.

CM110Q. Introduction to Archaeological Sciences. (4) (Same as Ancient Near East CM169) 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 emulated the theoretical and methodological techniques. Systematic instruction in digital data management and mining, scientific analysis of materials (including geological and bioarchaeological 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 theorectical 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. Study of selected topics in 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 Chiefdoms. (4) Lecture, three hours. Required: course 2. Examination of chiefdom societies in archaeological record, with readings focused on theory and data from archaeological, historical, and ethnographic literature. Illustration of how people in ranked non-state societies created remarkably rich cultures over entire globe beginning several millennia ago in both Old World and Americas. P/NP or Letter grading.

112R. Cities Past and Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Required: course 2. 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.

125S. Politics of Past. (4) Lecture, three hours. Required: course 2. Examination of social and cultural context of modern archaeology. Topics include legal frameworks governing archaeological practice, relationships between archaeologists and descendant peoples, and mechanics of archaeology in current politics. P/NP or letter grading.

113P. Archaeology of North America. (4) Lecture, three hours. Prehistory of North American Indians; evolution of Indian societies from earliest times to (and including) contemporary Indians; approaches and methods of American archaeology. P/NP or letter grading.

113Q. California Archaeology. (4) Lecture, three hours. From earliest humans, through 10,000 years of history, study of diversity in California's original peoples. Aspects of technology, ideology, ecology, and social/political organization. Historic impacts on California Indians by Euro-Americans. P/NP or letter grading.

113R. Southwestern Archaeology. (4) Lecture, three hours. Examination of prehistory of American Southwest from 11,000 years ago to historic times. Emphasis on describing and explaining cultural variation and change, employing evolutionary perspective. Special attention to advent of farming and settling towns, large-scale interactive networks, abandonment of Four Corners area, ethnographic cultures. P/NP or letter grading.

114P. Ancient Civilizations of Mesoamerica. (4) Lecture, three hours. Archaeology of pre-Hispanic native cultures of Mesoamerica from late Preclassic through Classic periods. Emphasis on significant sociopolitical developments, classic period civilizations, and Aztec society as revealed by archaeology and early Spanish writing. P/NP or letter grading.

114Q. Ancient Civilizations of Andean South America. (4) Lecture, three hours. Required: course 2 or 3. Pre-Hispanic and Conquest period native cultures of Andean South America, as revealed by archaeology and early Spanish writing. Incas and their predecessors in Peru, with emphasis on sociopolitical systems, economic patterns, religion, and aesthetic and intellectual achievements. P/NP or letter grading.

M115. Archaeology of Egypt and Sudan. (4) (Same as Ancient Near East M103.) Lecture, two hours; laboratory, one hour. Ancient Egypt is well known for iconic archaeological sites such as Giza Pyramids and Tomb of Tutankhamun. From these and thousands of less well-known sites, enormous variety of archaeological information can be drawn. Discussion of particular archaeological themes, regions, or sites, examination of methods of prehistoric and historic archaeology and how archaeological information contributes to understanding of social, political, and religious history. 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 included in which student research is performed and presented in time map. P/NP or letter grading.

116P. 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 and movements, including Aryan migrations, as well as consideration of how past is interpreted in present. P/NP or letter grading.

116Q. Selected Topics in Archaeology of China. (4) Lecture, three hours. Examination of current developments and key issues in prehistoric Chinese civilizations. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or Letter grading.

M116R. Archaeological Sciences of China. (4) Same as Anthropology M183) Lecture, three hours; discussion, one hour (when scheduled). Declassified space images from Cold War era and open remote sensing data of 21st century provide opportunities for studying landscape transformation in historical China. Combining lectures, library research, and hands-on analysis of archaeological sites on satellite images, investigation of changing historical and archaeological landscapes in China over the last 5,000 years. Social processes at various scales, from emergence of early cities to rise of metropolitan centers and formation of imperial landscapes. P/NP or letter grading.

116S. 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 Recent, concentrating on segments of landscapes such as Ancient Near East M105.) Lecture, two hours; laboratory, one hour. Hands-on experience working with collections and data. May be repeated for credit with topic change. P/NP or letter grading.

C117. 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 the following: zooarchaeology, paleoethnobotany, ceramics, rock art. Laboratory experience with collections and data. May be repeated for credit. P/NP or letter grading.

118Q. Conquest and Colonialism. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed to expose students to anthropological issues on European conquest and colonialism. Comparative view of colonialism through examination of case studies of encounters and entanglements between peoples of different cultural traditions during past 500
years. Particular interest is placed in rapid environ-
mental and social transformations that ensued soon
after contacts between indigenous groups and Euro-
pean explorers, emphasizing responses of indigenous
peoples to such contacts. Focus on archaeological perspec-
tives, particularly long-term dynamics of cross-cultural
entanglements, and effects of such in-
teractions in landscape, material culture, and past
ways of life. Highlights significant contributions of ar-
chaeo-
ology in understanding often rapid and dramatic
social-cultural
changes experienced by peoples involved in
colonial encounters. P/NP or letter grading.

118R. Religion and Urbanism. (4) Lecture,
three hours; discussion, one hour (when scheduled).
Reli-
gion and urbanism are fundamental components of social
life, extending deep into human past. Earliest cities
often made use of power of religion, with rulers and
elite.endowing religious architecture, and placing
ritual centers at heart of urban realm. In modern times,
however, religious places have been treated with more
conflicted identity in cities, retaining some of their
prominent spaces, while less-articulated with
political power given expectation of secularism as
dominant public mode in modern nation-states. Ex-
amination of power of religion as social, organiza-
tional, and in both ancient and modern cities, focusing on four of world’s dominant
living ritual traditions (Buddhism, Christianity, Islam,
Judaism). 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

120. Survey of Biological Anthropology. (4) Lecture,
three hours. Requisite: course 1. Limited to ju-
niors and seniors. In-depth survey of theory and re-
search in anthropology, including evolutionary
theory, genetics, primate, human evolution, and human behavior. P/NP or letter grading.

124P. Human Behavioral Ecology. (4) Lecture, three hours; discussion, one hour (when scheduled). Recom-
manded prerequisite: course 1 or Life Sciences 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 behavioral ecology from a multi-
disciplinary perspective, including social organization, sexual divi-
sion of labor, parenting strategies, conflict, and coop-
eration. P/NP or letter grading.

124Q. Evolutionary Psychology. (4) Lecture, three hours; discussion, one hour (when scheduled). Recom-
manded prerequisite: course 1. Survey of research in evolution psychology. Review of relevant theory in
evolution and genetics. Emphasis on empirical studies of
modern human behavior from evolutionary per-
spective, including social behavior, decision making,
language, culture, and child development. P/NP or
letter grading.

124R. Evolution of Language. (4) Formerly num-
bered 124R. (Same as Communication M124.) Lecture,
three hours; discussion, one hour (when scheduled).
Recommended preparation: course 1 or 4 or Linguistics. Designed for juniors and seniors. How did human
capacity for language evolve? Examination of
origin of human language from biological, compara-
tive, developmental, social and computational per-
spectives. Topics include evolutionary theory, lin-
quistic structure, gesture and speech, animal commu-
nication, language learning, language disorders, and
computational models of language emergence. P/NP or
letter grading.

124S. Evolution of Human Sexual Behavior. (4) Lecture,
three hours; discussion, one hour (when scheduled).
Re-
quired: course 1. Examination of human sexual relations and social behavior from evolutionary perspec-
tives. Emphasis on theories and evidence for
sexual differences between men and women in their patterns of
growth, maturation, fertility, mortality, parenting,
and relations with members of opposite sex. P/NP or
letter grading.

124T. Evolution of Personality. (4) Lecture, three
hours; discussion, one hour (when scheduled). Recom-
manded prerequisite: course 1 or Life Sciences 1 or 7B or Psychology 10. Evolutionary hypotheses for ex-
istence of stable differences among individuals in pat-
terns of behavioral and psychological traits. Emphasis on
psychological accounts of personality structure (e.g. Big Five). Com-
parison of explanatory models including balancing se-
lection, facultative calibration, and mutation-selection
balance. P/NP or letter grading.

126P. Paleopathology. (4) Lecture, three hours. De-
signed for seniors. Evidence of disease and trauma, as
preserved in skeletal remains of ancient and modern human populations. Discussions of medi-
cal procedures (preparation), health status, ethnic mu-
tilation (cranial deformation, footbinding), cannibalism,
and sacrifice and roles such activities have played in human societies. P/NP or letter grading.

126Q. Evolution of Genus Homo. (4) Lecture, three hours. Required: course 1. Origin and evolution of
genus Homo, including archaic sapiens and Neander-
thals. Morphology, ecology, and behavior of these
groups. Course ends with appearance of modern hu-
mans. P/NP or letter grading.

128P. Primat Behavior Nonhuman to Human. (4) Lecture,
three hours; discussion, one hour (when scheduled). Designed for seniors. Review of primates behavior
and cognition from laboratory and field studies. Theoretical issues of animal behavior, with
special reference to nonhuman primates. Discussion of
human behavior as product of such evolutionary
processes. P/NP or letter grading.

128Q. Animal Communication. (4) Lecture, three
hours. Designed for Anthropology and Communica-
tion majors. Evolution, functions, design, and diversity of animal communication systems such as bird song,
dolphin calls, whale song, primate social signals, and
human language. P/NP or letter grading.

128S. Primate Genetics, Ecology, and Conserva-
tion. (4) (Same as Society and Genetics M142.) Seminar,
three hours; discussion, one hour (when scheduled). Emphasis on empirical aspects of primate behavior from
wild at different geographic scales, using read-
ings from primary literature on primate genetics,
ecology, and behavior. Study of paternity and kinship,
intrapopulation variation, population genetics, phy-
ogeography, systematics, phylogenetics/phyloge-
nomics and comparative genomics. Utility and appro-
priateness of various markers considered for different
research questions. Focus on mitochondrial DNA, mic-
rosatellites, nuclear genes, Y-chromosome, as well as
GWAS and genomic/next generation sequencing plat-
forms, and epigenetic markers. Discussion of
methods of fieldwork including sample
collections, technique collections, wild lab techniques,
software analysis packages, and statistical analyses.
Introductory-level understanding of genetics ex-
pected. Study further illuminates areas in molecular bi-
ology relevant to current studies analyzed. Letter
grading.

128T. Amazon in Anthropocene. (4) (Same as So-
ciety and Genetics M143.) Seminar, three hours. Con-
sideration of major issues faced in Amazon region
today using lenses of biology, geography, biological
anthropology, primatology, cultural anthropology/eth-
ography, history, comparative literature, film studies, political science, and philosophy. Analysis of
Amazon paleogeography and ecology over time to
highlight charismatic species, biodiversity, and habitat
features. Focus on human migration into Amazon, diver-
sity of indigenous groups today, and historic/ present
interactions with environment. Study of European ex-
peditions that carved out political boundaries within
Amazon. Study of historic/current effects of human
economic and land use on ecology. Exploration of
changes of power dynamics, inequity, and (un)sustain-
able of different cultural practices and technologies.
Topics include rubber boom, indigenous resistance to
economic exploitation, hydrocarbon 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.

129. Selected Topics in Biological Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in biological an-
thropology. Consult Schedule of Classes for topics
and instructors. May be repeated for credit with topic
change. P/NP or letter grading.

Sociocultural Anthropology

130. Study of Culture. (4) Lecture, three hours; dis-
cussion, one hour (when scheduled). Requisite: course 3. Designed for juniors/seniors. 20th-century
historical and theoretical development of concept of culture. Examination of five major paradigms: culture
as human capacity, as patterns and products of behavior,
as systems of meaning and cognition, as generative
structure and semiotic system, as component in social
action and reality construction. (Core course for cul-
tural field) P/NP or letter grading.

131. Critical Social Theory. (4) Lecture, three hours.
Requisite: course 3. Limited to juniors/seniors. In-
depth introduction to work of classic social theorists,
Karl Marx and Max Weber. Examination of their influ-
ence on anthropology. Exploration of recent attempts
to synthesize both perspectives. P/NP or letter
grading.

132. Anthropology of Environment. (4) Lecture,
three hours; discussion, one hour (when scheduled).
Enviornmental anthropology explores relationship be-
tween complex human systems and environments in
order to understand the impact of people and how
people are impacted by their environments, and
relationships between people are negotiated through managament of place and space throughout history.
This course is an introduction with beginning in early work in cultural ecology and including polit-
ical ecology, environmental history, contested ontolo-
gies, and contemporary environmental justice.
Through engagement with grounded, multimodal ethn-
ographies (in text, film, and new media), study of his-
torical movements of people across ecosystems, poli-
tical structures, and semiotic systems such as
rivers and atmosphere, bioeconomics of environ-
mental contamination, and development of climate
adaptation strategies in hard-hit areas. P/NP or
letter grading.

133. Anthropology of Food. (4) Lecture, three hours;
discussion, one hour (when scheduled). Production,
consumption, and distribution of food, with particular emphasis on culture of food. Exploration of ecological
history, economic, cultural, environmental, gender, race, and sexuality. Food that shapes identities, desires, and needs in contemporary world. P/NP or letter
grading.

134. Anthropology of Migration. (4) Lecture,
three hours; discussion, one hour (when scheduled).
Introduction of different views of population movement from refugee crisis and migration tendencies to poli-
cies surrounding newcomers’ incorporation and anti-
immigration political strategies. Examination of moti-
vations for migration, both voluntary and involuntary movements (e.g., displacement, slave trades, or
ethnic violence). P/NP or letter grading.

135. Visual Anthropology. Documentary Photogra-
phy. (4) Lecture, three hours; discussion, one hour
(when scheduled). Photographs in anthropology serve
many purposes: as primary data, illustrations of words in
text, documentation for disappearing cultures, evidence of fieldwork, material objects for museum
exhibitions, and even works of art. Topics include rela-
tionships between subject and treatment of image, histori-
yc/contemporary/ethical issues. History of documen-
tation, role of museum photograph and caption, social
practice of taking pictures, and case study on photo-
graphing Middle East and North Africa. P/NP or
letter grading.

135R. Multimedia Ethnography. (4) Lecture, three
hours; discussion, one hour (when scheduled). Intro-
duction of different views on population movement
from refugee crisis and migration tendencies to poli-
cies surrounding newcomers’ incorporation and anti-
immigration political strategies. Examination of moti-
vations for migration, both voluntary and involuntary movements (e.g., displacement, slave trades, or
ethnic violence). P/NP or letter grading.
phasis on collection and analysis of language in use, with focus on video recording naturally-occurring dia-
log or multiparty conversations, and on analyzing phenomena occurring within these conversations. P/NP or letter grading.

136A. Introduction to Psychological Anthropology: Historical Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Required course. Survey of field of psychological anthropology, with emphasis on early founda-
tions and history of development of field. Topics include study of personality, pathology and de-
viance, altered states of consciousness, cognition, motivation, and emotion in different cultural settings. P/NP or letter grading.

136B. Introduction to Psychological Anthropology: Current Topics and Research. (4) Lecture, three hours; discussion, one hour (when scheduled). De-
signed for juniors/seniors. Survey of field of psy-
thological anthropology, with emphasis on current topics and research. Topics include study of personality, pathology and deviance, altered states of consciousness, cognition, motivation, and emotion in different cultural settings. P/NP or letter grading.

137P. Anthropology of Deviance and Abnormality. (4) Lecture, three hours. Requisite: course 3. Relationship-
ship between culture and recognition of, responses toward, phenomena such as deviant and abnormal behavior. P/NP or letter grading.

137Q. Psychoanalysis and Anthropology. (4) Lecture,
two hours; discussion, one hour (when sched-
uled). Exploration of mutual relations between anthro-
po-logy and psychoanalysis, considering both theory and method. History of and current developments in psychoanalysis; anthropological critiques of psycho-
analytic theory and method, toward cross-cultural psychanalytic 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 tools and skills of field work in cultural anthropology. Emphasis on techniques, methods, and concepts of ethnographic 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. Investigative research methods and application of techniques in data collection, analysis, and reporting. Critical reflection of issues related to identity, migration, multiculturalism, terrorism, and in-
digenous rights. Field 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 sched-
uled). Requisite: course 137Q or 137P. Study of a spe-
cialized topic 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 Movements. (4) Lecture, three hours; discussion, one hour (when scheduled). En-
focused requisite: course 3. Introduction to more spe-
cialized social anthropology courses. Overview of vari-
ant social movements, with special emphasis on forms of inequality. Basic frameworks of anthro-
pological analysis; historical context and develop-
ment 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 jobs in which one can apply anthropological concepts, research methodologies, and analytical skills to range of careers. Guest speakers discuss how they have applied their anthropological degrees—dealing with culture—outside of academia. P/NP or letter grading.

142P. Anthropology of Religion. (4) Lecture, three hours. Survey of various methodologies in com-
parative 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 ac-
count for variation in religious systems cross-cultu-
urally. P/NP or letter grading.

143Q. Ethnic and Religious Minorities. (4) Lecture, three hours. Analytical overview of ethnic and religious minorities in contemporary Middle East and North Af-
rica structured around sociocultural experiences of ethnic and religious groups to understand their polit-
cal, economic, social, and cultural impacts. Consideration of modes of production, distribution, and consumption of goods and services in their relation to social net-
works, power structures, and institutions of family, kin-
ship, 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 developments in animal rights, and very dif-
ferent ways species distant in time and space from our own have constructed inner lives of other species and their ties to human others. Concurrently sched-
uled with course 415P and course 138P. P/NP or letter grading.

M144P. Constructing Race. (4) (Same as African American Studies M159P and Asian American Studies M160P.) Lecture, three hours; discussion, one hour (when scheduled). Examination of race, socially con-
structed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, mul-
tracial identity in U.S., whiteness, race in popular cul-
ture, and race and identity. P/NP or letter grading.

M144Q. Afro-American Experience in U.S. (4) (Same as African American Studies M164P.) Lecture, three hours. Promotes understanding of contemporary sociocultural experiences of Afro-Americans in the U.S. by presenting comparative and diachronic perspective on Afro-American experience in New World. Emphasis on utilization of anthropological concepts and methods in understanding origins and maintenance of particular patterns of adaptation among black Americans. P/NP or letter grading.

144R. Anthropists and Indians: Racism, Colonialism, and Development of Anthropology in America. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 140. Examination of long-standing contentious rela-
tionship between American Indians and discipline of anthropology and history of anthropological study of America. Consideration of way anthropology has contributed to repression and marginalization—even subjugation—of Indians in American society. P/NP or letter grading.

C144S. Repatriation of Native American Human Remains. (4) Lecture, three hours; discussion, one hour. Native Americans have recently been successful in obtaining passage of fed-
eral and state laws repatriating human remains and cultural objects to them. Examination of this phenom-
emon. May be concurrently scheduled with course C244S. P/NP or letter grading.

M145P. Marriage, Family, and Kinship. (4) (Same as Gender Studies M151P and Sociology M165P.) Lecture, three hours; discussion, one hour (when scheduled). Requi-
site: course 3. Examination of understandings of kinship in cross-cultural perspective and impact of kin-
ship on interpersonal relationships, gender roles, and sociocultural systems. Readings from popular mate-
rials and formal ethnographic accounts. P/NP or letter grading.

M145Q. Selected Topics in Gender Systems. (4) (Same as Gender Studies M154.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3. Examination of understanding of kinship in cross-cultural perspective and impact of kinship on interpersonal relationships, gender roles, and sociocultural systems. Readings from popular mate-
rials and formal ethnographic accounts. P/NP or letter grading.

M145R. Women and Social Movements. (4) (Same as Gender Studies M154R.) Lecture/discussion, three hours. Recommended preparation: prior gender studies or anthropology courses. Comparative studies of social movements (e.g., nationalist, socialist, liberal/ reform, women’s) beginning with China and includ-
ing Cuba, Algeria, Guinea-Bissau, Mozambique, Nicaragua, and Iran. Analysis of women’s participation in social transformations and centrality of gender in in-
terests. P/NP or letter grading.

M145S. Culture, Gender, Sexuality. (4) Lecture, three hours. Comparative analysis of role of environment, history, and culture in structuring of patterns of gender and sexuality. P/NP or letter grading.

M145T. Women’s Voices: Their Critique of Anthro-
pology of Japan. (4) (Same as Gender Studies M154T.) Lecture, three hours. Preparation: introduc-
tory sociocultural anthropology course. Anthropology of Japan has long viewed Japan as homogeneous whole. Restoration of diversity and contradiction in it by listening to voices of Japanese women in various historical contexts. P/NP or letter grading.

146. Urban Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Requi-
site: course 3. Designed for juniors/seniors. Compara-
tive study of planned and unplanned development, in particular as it affects rural societies. Emphasis on im-
 pact of capital, technological change and gender dif-
f erences, economic differentiation and class, urban/ rural contrasts, and migration. P/NP or letter grading.

M148. Past People and Their Lessons for Our Own Future. (5) (Same as Geography M142 and Honors Collegium M152.) Lecture, two hours; discussion, two hours. Examination of modern and past people that met varying fates, as background to examination of how other modern people are coping or failing to cope with similar issues. Letter grade or P/NP.

149. Selected Topics in Social Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in social anthro-
pology. Consult Schedule of Classes for topics and in-
stuctors. May be repeated for credit with topic change. 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 Linguis-
tics 20. Study of language as aspect of culture; rela-
tion of habitual thought and behavior to language; and language and classification of experience. Holistic ap-
proach to study of language, with emphasis on rela-
tionship of linguistic anthropology to fields of biolog-
ical, cultural, and social anthropology, as well as ar-
chaeology. (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 objec-
tives: (1) to introduce students to ethnography of commu-
nication—description and analysis of situations, commu-
nicative behavior—and sociocultural knowledge; (2) to train students to recog-
nize, describe, and analyze relevant linguistic, pro-
ecic, and kinesic aspects of face-to-face interaction. P/NP or letter grading.

M152P. Language Development and Socialization. (4) (Same as Psychology M143.) Lecture, three hours; discussion, one hour (when scheduled). Exploration of processes through which children learn structures and practices of language and become competent partici-
parts in linguistic and social worlds around them. Examination of language use and socialization over childhood, across communities of practice, and across different ethnic and socioeconomic groups. Bridges work from anthropology, psychology, linguistics, and education. Topics include cross-cultural perspectives on child development and wide range of methodological approaches. Examination of ways in which language development and socialization interface with culture, modality, inequality, education, and cognition. P/NP or letter grading.

152Q. Language 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 speech communities are used to constitute kinds of efforts that members of threatened heritage lan-
guage communities have produced in their attempt to revitalize these languages. Projected loss of as many 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 ideo-
gologies, and political policies toward 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. Ex-
amination of some diverse strategies that have been attempted, including immersion, language and culture classes, master-apprentice, interactive multimedia, mass media approaches, and language policy-reform approaches. Examination of effectiveness of these mea-
sures 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). Requi-
site: course 4. Use of recent political events to collect, learn how to analyze, and write up short pieces on po-
itical talk, primarily in U.S. Concurrently scheduled with course C257P. P/NP or letter grading.

M158. Culture of Jazz Aesthetics. (4) (Same as Eth-
nomusicology M130 and Global Jazz Studies M130.) Lecture, three hours. Recommended requisite: course 3 of course 4 of Ethnomusicology 20A or 20B or 20C. Aes-
thetics 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 of demonstration, analysis of instrumental and vocal improvisation, analytical resources and historical knowledge of music-
cians and ethnomusicologists combined with those interested in jazz as cultural tradition. 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 an-
thropology. 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). De-
sign for juniors/seniors. Consideration of diversity of Native American societies north of Mexico, including their origins, formation, and development. Particular attention to subsistence systems and 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 tremendous change Native American societies have undergone since European contact. Emphasis on patterns of adaptation and continuity as Native Americans con-
tinued to develop their ways of living. 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 rela-
tions 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. Description and analysis is also examined. Con-
sideration is paid to Native American verbal art because of its cultural importance. Examination also of language shift away and current efforts by indig-
genous peoples to revitalize indigenous language lan-
guages. 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 Re-
vitalization. (4) American Indian Studies (Same as American Indian Studies M162.) Lecture, three hours; activity, one hour. Requi-
sites: course 4, American Indian Studies M10. Examina-
tion of causes and consequences of current world-
wide loss of linguistic diversity and revitalization of kinds of efforts that members of threatened heritage lan-
guages.
mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Limited to junior/senior USIE facilitators. Individual contract with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to anthropology honors program students. Directed reading and research under the supervision of an anthropology faculty mentor. May be repeated toward honors credit for eligible students. Honor contract noted on transcript. P/NP or letter grading.

191D. 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 emphasis on reading students’ research generally. Topics include evolutionary theory, primatology, evolutionary psychology, cultural evolution, and human behavioral ecology. Letter grading.

193A-203B-203C. Core Seminars: Sociocultural Anthropology. (4–4–4) Seminar, three hours. Letter grading:


204A. Core Seminar: Linguistic Anthropology. (4) Formerly numbered 204.) 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 among language, culture, and power. 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, practices, topics, and central theoretical frameworks being used across subfield. Consideration of texts’ relationships 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 reader participation within book format. This provides means of characterizing very different generic expectations for dissertation writing within anthropology, allowing for additional professionalization component. Letter grading.

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 both discipline and subfield 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 topical threads of coursework, followed by responses by instructor and one or more student discussants. Discussion of speaker’s work, instructor and student responses, and weekly readings selected from visiting faculty member’s work and positioning speaker’s work in broader history of field. S/U or letter grading.

M201A-M201B. Graduate Core Seminars: Archaeology. (4–4–4) Same as Archaeology M201A-M201B.) Seminar, three hours. Required of anthropology students in archaeology field seminar. Seminar discussions based on carefully selected list of 25 major works related to development of archaeology in social sciences (M201A) and humanities (M201B). Core seminars provide students with foundation in breadth of knowledge required of professional archaeologists. Archaeological historiography, survey of world of archaeology, and archaeological techniques. Emphasis on appreciation of multidisciplinary background of modern archaeology and relevant interpretive strategies. May be repeated for credit with instructor’s consent. S/U or letter grading.

M201C. Archaeological Research Design. (4) Same as Ancient Near East M201 and Archaeology M201C. Seminar, three hours. Requisites: courses M201A or M201B and 210A. Study of main archaeological topics in preparation for MA thesis or PhD phase. Students do exploratory research to select subject, then write 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) Formerly numbered 202.) Seminar, three hours. Required of anthropology students in biological anthropology subfield. Focus is on current research and 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 a two-course series. Examination of theoretical and empirical writings that shaped biological subfield, and emphasis on reading students’ research 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 emphasis on reading students’ research generally. Topics include evolutionary theory, paleoanthropology, population genetics, and evolutionary game theory. Letter grading.


221. Behavior, Evolution, and Culture. (2) 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 emphasis on the meaning and theory of typology 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.

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 paleoanthropology, 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.

224. 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 and their testing in ongoing student and faculty research. May be repeated for credit. S/U or letter grading.


232P. Anthropology and Media Theory. (4) Seminar, three hours. Limited to graduate students. Examination of theoretical assumptions and debates that animate visual anthropology very broadly defined, including issues of interpretation, production, and reception of visual media, which incorporates ethnographic, documentary, and feature films, as well as television programming. S/U or letter grading.

232Q. Ethnographies of Information Technology. (4) Seminar, three hours. Emerging work on new information economy, ethnographies of cybernetics. 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. Focus on written critical analysis and class discussion provided through key theoretical works. S/U or letter grading.

233Q. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) Same as Community Health Sciences 235P. 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 case examples of religion and healing practices via lecture, film, and audiota. Letter grading.


233T. Narrative and Tropes of Trouble. (4) Seminar, three hours. Limited to one course from 203A, 203B, 203C, 204, or 252A. Exploration of how linguistic and psychological/medical anthropologists inform each other in relation to narrative and time. Focus on human narrative—sense-making in response to illness and misfortune: phenomenology of time, narrative, healing, and experience; 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. Interdisciplinary discussion group holding regular talks and discussions with scholars from UCLA and beyond. Group proves, leaders include ethnographic, theoretical and classical studies and contemporary theoretical perspectives that inform psychosomatic and sociocultural studies. S/U grading.


236. Seminar: Psychosexual Studies and Medical Anthropology. (4) Seminar, three hours. Devoted to presentation of research in psychosocial studies. Survey of work in child development and socialization, personality, psychobiology, transcultural psychiatry, drug use, and media. Exploration of psychosexual perspectives on culture. S/U or letter grading.

237. Psychological Anthropology. (4) Same as Psychiatry M272P. 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 unconscious processes as they relate to cultural phenomena. Class may be repeated for credit with topic change. S/U or letter grading.

238. Native American Revitalization Movements. (4) Seminar, three hours. Discussion and practical in various techniques for collecting and analyzing ethnographic data. S/U or letter grading.

239. Selected Topics in Field Ethnography. (4 to 8) Seminar, three hours. Discussion and practical in various techniques for conducting and analyzing ethnographic field data. S/U or letter grading.

240Q. Ethnographic Methods in Sociocultural Anthropology. (4) Seminar, three hours. Introduction to some of key methods used in anthropological research, paying special attention to topic formation, research design, deployment of evidence and theoretical resources, techniques of engagement (participant observation, interviewing, genealogy, etc.), media making and analysis, and politics of ethnographic knowledge production. Approach combines readings in critical anthropology relevant to methodological practice with workshop-style explorations of particular techniques for gathering, analyzing, and presenting field material. Exploration of limits and power of ethnography (broadly construed) by setting up model projects and experimenting with typical research tasks. S/U or letter grading.

241. Culture, Power, Social Change. (2) Seminar, two hours. Cutting-edge research in sociocultural anthropology. Talks given by scholars from different universities around the world and faculty and students from UCLA. A wide range of discussion varies from year to year. S/U grading.


243. Gender Systems. (4) Same as Gender Studies M265. Seminar, three hours. Current theoretical 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 our own have constructed inner lives of other species and their roles to human others. Concurrently scheduled with course C144M. S/U or letter grading.

M244P. Contemporary Issues of American Indians. (4) Same as American Indian Studies M200C and Sociology M273S. Seminar, three hours. Introduction to and discussion of important issues facing Native Americans as individuals, communities, tribes, and organizations in contemporary world, building on historical background presented in American Indian Studies M200A and cultural and historical experiences of Native American Indians presented in American Indian Studies M200B. Letter grading.
Linguistic Anthropology

224. 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 the phenomenon. May be concurrently scheduled with course C144S. S/U or letter grading.

225. Critical Theory of African Diaspora. (4) Same as African American Studies M202R.) Seminar, four hours. Introduction to a variety of ideas that underlay articulation of construct of African diaspora. Structured through understanding of African diaspora as historical focus on Africanists as distinct intellectual project. Exploration of ways scholars have conceptualized and theorized diasporic condition of Black peoples. Consideration of who belongs to this community and how this community is imaged. 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.

2247P. Japan in Age of Empire. (4) Same as Asian M292 and History M286R.) Seminar, three hours. Designed for those interested in/a in the late 19th and early 20th centuries. 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 territories. Exploration of how the imperial period transformed the study of area of study of colonialism. S/U or letter grading.

2247Q. Central Asian Studies: Discipline, Methods, Debates. (2) Same as History M287R. Seminar, two hours. Introduction to study of Central Asia as practiced in humanities and social sciences disciplines. S/U grading.

2247R. Modernization and Taiwan Indigenous Societies. (4) Seminar, three hours. Historical examination of impacts on indigenous peoples in Taiwan beginning with Han colonization. Examination of integration of indigenous groups into state politics and market economy, and state-sponsored disengagement that forced erasure of indigenous cultures and knowledge. Study of resistance by groups to assimilationist processes through emergence of new strategies to maintain indigenous identities with regard to Han hegemony. Focus on intensification of indigenous peoples’ ties to land. Offers framework to understanding Taiwan indigenous peoples’ experiences under modernization. S/U or letter grading.

2248. Anthropology and History of Mediterranean. (4) Seminar, three hours. Study of historical and anthropological writings about Mediterranean. Draws on a variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imagi- nary boundaries, Mediterranean honor/shame conceptions, colonial and post-colonial Mediterranean, Levantinism, thiassology, Mediterraneanism, French Mediterraneans, Jewish Mediterraneans, colonial and post-colonial sea and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean. Seminar, three hours. Introduction to historical and anthropological writings about Mediterranean. Draws on a variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imagined boundaries, Mediterranean honor/shame conceptions, colonial and post-colonial Mediterranean, Levantinism, thiassology, Mediterraneanism, French Mediterraneans, Jewish Mediterraneans, colonial and post-colonial Mediterranean and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean. Seminar, three hours. Study of historical and anthropological writings about Mediterranean. Draws on a variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame conceptions, colonial and post-colonial Mediterranean, Levantinism, thiassology, Mediterraneanism, French Mediterraneans, Jewish Mediterraneans, colonial and post-colonial Mediterranean and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean. Seminar, three hours. Study of historical and anthropological writings about Mediterranean. Draws on a variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame conceptions, colonial and post-colonial Mediterranean, Levantinism, thiassology, Mediterraneanism, French Mediterraneans, Jewish Mediterraneans, colonial and post-colonial Mediterranean and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean. Seminar, three hours. Study of historical and anthropological writings about Mediterranean. Draws on a variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame conceptions, colonial and post-colonial Mediterranean, Levantinism, thiassology, Mediterraneanism, French Mediterraneans, Jewish Mediterraneans, colonial and post-colonial Mediterranean and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean. Seminar, three hours. Study of historical and anthropological writings about Mediterranean. Draws on a variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame conceptions, colonial and post-colonial Mediterranean, Levantinism, thiassology, Mediterraneanism, French Mediterraneans, Jewish Mediterraneans, colonial and post-colonial Mediterranean and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean. Seminar, three hours. Study of historical and anthropological writings about Mediterranean. Draws on a variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame conceptions, colonial and post-colonial Mediterranean, Levantinism, thiassology, Mediterraneanism, French Mediterraneans, Jewish Mediterraneans, colonial and post-colonial Mediterranean and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean. Seminar, three hours. Study of historical and anthropological writings about Mediterranean. Draws on a variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame conceptions, colonial and post-colonial Mediterranean, Levantinism, thiassology, Mediterraneanism, French Mediterraneans, Jewish Mediterraneans, colonial and post-colonial Mediterranean and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean. Seminar, three hours. Study of historical and anthropological writings about Mediterranean. Draws on a variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame conceptions, colonial and post-colonial Mediterranean, Levantinism, thiassology, Mediterraneanism, French Mediterraneans, Jewish Mediterraneans, colonial and post-colonial Mediterranean and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean. Seminar, three hours. Study of historical and anthropological writings about Mediterranean. Draws on a variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame conceptions, colonial and post-colonial Mediterranean, Levantinism, thiassology, Mediterraneanism, French Mediterraneans, Jewish Mediterraneans, colonial and post-colonial Mediterranean and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean. Seminar, three hours. Study of historical and anthropological writings about Mediterranean. Draws on a variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame conceptions, colonial and post-colonial Mediterranean, Levantinism, thiassology, Mediterraneanism, French Mediterranea...
APPLIED LINGUISTICS

College of Letters and Science
3125 Campbell Hall
Box 951543
Los Angeles, CA 90095-1543

Linguistics
310-825-0634
Linguistics e-mail

Kie R. Zuraw, PhD, Director of Graduate Studies

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.

Undergraduate Study
The Applied Linguistics BA was transferred to the Linguistics Department effective winter quarter 2015.

Graduate Study
The Department of Applied Linguistics offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Applied Linguistics. However, the UCLA Academic Senate approved the discontinuance of the graduate degree and certificate programs 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 3. Not open for credit to students with 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). Writing credit II requirement. Letter grading.

Graduate Courses
375. Teaching Apprentice Practicum. (1 to 4) Seminar, three hours. Enforced requisite: courses 203A, 203B, and 203C, or 204A and 204B. Introduction to European phenomenology and its relevance for anthropological research. Exploration of problem of intersubjectivity in its existential, semiotic, and linguistic dimensions. Key topics include human intentionality, consciousness, empathy, agency, cooperation, experience, and embodiment. S/U or letter grading.

399. Directed Individual Study. (2 to 12) Tutorial, 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.

ARCHAEOLOGY

Interdepartmental Program
College of Letters and Science
A210 Fowler Building
Box 951510
Los Angeles, CA 90095-1510

Archaeology
310-825-4169
E-mail contact
Gregson T. Schachner, PhD, Chair

Faculty Committee
Stephen B. Acabado, PhD (Anthropology)
Hans Barnard, MD, PhD (Near Eastern Languages and Cultures)
Sarah E. Beckman, PhD (Classics)
P. Jeffrey Brantingham, PhD (Anthropology)
Aaron A. Burke, PhD (Near Eastern Languages and Cultures)
Meredith M. Cohen, PhD (Art History)
Kathlyn (Kara) M. Conway, PhD (Near Eastern Languages and Cultures)
Jason P. De Léon, PhD (Anthropology, Chicana/o and Central American Studies)
Sharon E. J. Gerstel, PhD (Art History)
Joanna Kakoulli, DPhil (Materials Science and Engineering)
Richard G. Leslie, PhD (Anthropology)
Min Li, PhD (Anthropology, Asian Languages and Cultures)
Sarah P. Morris, PhD (Classics)
Stella E. Nair, PhD (Art History)
John K. Papadopoulos, PhD (Classics)
Ellen J. Pearlistein, MA (Information Studies)
Gregson T. Schachner, PhD (Anthropology)
Monica L. Smith, PhD (Anthropology, Environment and Sustainability)
Lothar von Falkenhausen, PhD (Art History)
Thomas A. Wake, PhD (Anthropology)
Willeke Z. Wendrich, PhD (Near Eastern Languages and Cultures)
Glenn Wharton, PhD (Art History)

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.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Archaeology
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. 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 a multidisciplinary field of study, combining its own research methods and technologies with elements from geology, history, ethnography, geography, material science, statistics, biology, biochemistry, medicine, and others, presenting opportunities not only to obtain new scholarly insights, but also to provide integrated instruction in science, technology, engineering, and mathematics (STEM) skills. Use of archaeological data as 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 zooarchaeology or paleoethnobotanical research offers point of departure for students 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 supplemented 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 supplemented 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

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 material, especially metals, ceramics, and other inorganic and some organic substances. Concurrently scheduled with course C210. P/NP or letter grading.

M12. Archaeology and Art of Christian and Islamic Egypt. (4) (Same as Art History M119D, Islamic Studies M1112, and Middle Eastern Studies M112.) Lecture, three hours. Culture of Egypt transformed gradually after Muslim conquest in mid-7th century CE. According to Islamic sources, textiles, architectural forms, and building techniques, it is functionally impossible to separate pre-Islamic Christian Egypt from early Islamic Egypt. Although Christianity may have become largely Muslim by 10th century, Egypt remained Coptic in many senses even to 14th century and retains sizeable Christian minority today. Survey of archaeological remains and understanding 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 faculty at UCLA. May be repeated for credit with topic change. Concurrently scheduled with course C220. Final project or paper required if taken for 4 units (P/NP or letter grading); 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.

C180. 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 of values. Critical analysis of research and research work of last two decades that has substantially advanced understanding of processes of extraction, alloying, 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 common alloying systems and environments. Metallographic study samples represent Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese sword-making, Indian high-tin bronze alloys, bronzes, Peruvian, Colombian, Costa Rican, and Panamanian copper and gold-copper alloys. Concurrently scheduled with course C280. 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.

M201A-M201B. Graduate Core Seminars: Archaeology. (4–4) (Same as Anthropology M201A-M201B.) Seminar, three hours. Required of all students. Seminar discussions based on carefully selected list of 25 major works related to development of archaeology in social sciences (M201A) and humanities (M201B). Compulsory core seminars provide students with foundation in breadth of knowledge required of professional archaeologists. May be repeated for credit with consent of adviser. S/U or letter grading.

M201C. Archaeological Research Design. (4) (Same as Ancient Near East M201 and Anthropology M201C.) Seminar, three hours. Requisites: courses M201A, M201B. How to design archaeological projects in preparation for MA thesis or Ph.D. phase. Students do exploratory research to select subject, then write 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 or written project 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.

M205A. Selected Laboratory Topics in Archaeology. (4) (Same as Anthropology CM217.) Lecture, one hour; laboratory, two hours. Designed for graduate students in archaeology in other departments. Specialized analysis of particular classes of cultural remains. Topics may be one of following: zooarchaeology, paleoethnobotany, ceramics, lithic analysis, rock art. Laboratory experience with collections and data. May be repeated for credit with topic change. S/U or letter grading.

205B. Intensive Laboratory Training in Archaeology. (4) Lecture, three hours; laboratory, two hours minimum. Advanced laboratory training for graduate students with extended laboratory hours. Special laboratory-based topics, including but not limited to lithic analysis, ceramic analysis, zooarchaeology, and paleoethnobotany. May be repeated for credit with topic change. S/U or letter grading.

C210. Archaeological Materials Identification and Characterization. (4) Lecture, one hour; laboratory, two hours. Survey of archaeological materials. Metallographic study samples represent Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese sword-making, Indian high-tin bronze alloys, bronzes, Peruvian, Colombian, Costa Rican, and Panamanian copper and gold-copper alloys. Concurrently scheduled with course C120. Final project or paper required if taken for 4 units (S/U or letter grading); 2-unit course has S/U 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 topic change. Concurrently scheduled with course C120. Final project or paper required if taken for 4 units (S/U or letter grading); 2-unit course has S/U grading.

M265. Depositional History and Stratigraphic Analysis. (4) (Same as Ancient Near East 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 embedded cultural materials. Study of issues covered in literature, with specific test cases from actual excavations.
ARCHITECTURE AND URBAN DESIGN
School of the Arts and Architecture
1317 Perloff Hall
Box 951467
Los Angeles, CA 90095-1467

Architecture and Urban Design
310-825-7857
Admissions e-mail

Marina Ibañez, MArch, Chair
A. Kutan Ayata, MArch, Vice Chair

Faculty Roster

Professors

Hitoshi Abe, PhD (Paul I. and Hisako Terasaki Professor of Contemporary Japanese Studies)
Dana Cuff, PhD
Neil M. Denari, MArch
Greg S. Lynn, MArch
Brett B. Steele, AADipl

Professors Emeriti

Marvin Adelson, PhD
Samuel Aroni, PhD
Diane G. Favro, PhD
Baruch Givoni, PhD
Thomas S. Hines, PhD
Craig E. Hodgetts
F. Eugene Kupper, MArch
Jurg Lang, DipArch
Sylvia Lavin, PhD
Robin S. Liggitt, PhD
Mark Mack
Thom Mayne, MA
Murray A. Milne, MArch
Barton Myers, MArch
George Rand, PhD
Dagmar E. Richter, DipArch
Richard Schoen, MArch
Thomas R. Vreeland, Jr., MArch

Associate Professors

A. Kutan Ayata, MArch
Georgina Hulijich, MArch
Mariana Ibañez, MArch
Ayala Levin, PhD
Michael Osman, PhD
Jason K. Payne, MArch
Heather L. Roberge, MArch

Assistant Professor

Cristóbal Amunátegui, PhD

Adjunct Professors

Kevinn M. Daly, MArch
Jeffrey N. Inaba, MArch, MA
Alan Locke, MSc
Roger Sherman, MArch

Adjunct Assistant Professors

Julia Koerner-Al-Rawi, MSc
Natasha S. Sandmire, MA
Mohamed Sharif, MS

Overview

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 Architecture 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

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. Applications are available in the department office to regularly enrolled UCLA students during the previous fall
quarter. For more information, consult with the undergraduate adviser.

**Preparation for the Major**

*Required: Architecture and Urban Design 10A, 10B, 30.*

**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.

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

### Architecture 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.

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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.

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 Regional Planning*

### Architecture and Urban Design

#### Lower-Division Courses

1. **Introduction to Design** (2 or 3) Studio/lecture/field trips, 40 hours. Limited to high school students. Two- or three-week intensive summer course on architectural design, with focus on developing design skills through space making and its representation. Exposure to contemporary architectural practices through studio work, lectures and presentations, field trips, and final presentation, critique, and exhibition of student work. Offered only as part of Teen Arch Studio summer program. P/NP grading.

10A. **History of Architecture and Urban Design:** Prehistory to Mannerism. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration of developments in global architecture and urban design 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. **History of Architecture and Urban Design: Baroque to Contemporary Moment.** (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.

10C. **Introduction to Representation.** (2) Lecture, three hours; discussion, one hour; outside study, 15 hours. Introduction to the visual representation of architectural ideas. Techniques of repetition, variation, scale, and rhythm. P/NP grading.

10D. **History of Architecture and Urban Design: Modern to Contemporary.** (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Survey of the evolution of architectural ideas from Modernism to the contemporary moment and the ways in which these ideas have been implemented in urban and architectural design. P/NP grading.

### Architecture and Urban Design / 205

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. P/NP grading.

121. **Studio I.** (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. P/NP grading.


123. **Studio III.** (6) Studio, eight hours; outside study, 10 hours. Enforced requisites: courses 121, 122. Limited to Architectural Studies majors. Introduction to disciplinary issues, techniques and organization 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, climatology, accessibility, and their mutual interaction. Letter grading.

M125B. **Digital Cultural Mapping Core Course B: Google Earth, Geographic Information Systems, Hypertopics, and Timelines.** (4) (Same as Ancient Near East M125B) Laboratory, three hours; discussion, one hour. Enforced requisite: Ancient Near East 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 learned in Ancient Near East 125A to real-world data sets in humanities and social sciences. 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 this new field. How to use suite of GIS and geoeography 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 imple-mentation of student mapping-based research proj-ects. Part of Digital Cultural Mapping Project sup-port provided by W.M. Keck Foundation. P/N/P or letter grading.
M125C. Digital Cultural Mapping Core Course C: Summer Research. (4) (Same as Ancient Near East M125C.) Laboratory, three hours; fieldwork, one hour. Enforced requisite: course M125B or Ancient Near East M125B. Introduction to three-dimensional geoprocessing information systems (GIS) research project in human-ities or social sciences using skills learned in courses 125A and 125B. Gathering and input of datasets from real-world visual representations of data through production of digital maps, and performing analysis of larger dataset to answer spe-cific research questions. Final oral presentation re-quired that details student work and provides critical analysis of source material and technological/method-ological issues inherent to type of GIS used for investiga-tion. Part of Digital Cultural Mapping Project sup-port provided by W.M. Keck Foundation. Offered in summer only. P/N/P 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, with focus on mutual interaction of human be-ings 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/N/P or letter grading.
131. Issues in Contemporary Design. (5) Lecture, three hours; outside study, 12 hours. Limited to Archi-tectural Studies majors. How global design culture today operates as part of set of spatial, economic, po-litical, and cultural policies. From development of cities to new formal languages in architecture, con-sequences 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. Domestic Architecture: Critical History. (5) Lecture, three hours; outside study, 12 hours. Limited to Archi-tectural Studies majors. Introduction of relation-ships between culture and design through medium of domestic architecture and cultural living arrangements of antiquity to functional and automated ideals of modern movement. Exploration of how de-sign of domestic interior has evolved to express and accommodate new developments in life-style and taste. Letter grading.
133. Modernism and Metropolis. (5) Lecture, three hours; outside study, 12 hours. Limited to Architec-tural Studies majors. Introduction to emergence of contemporary metropolis through series of compara-tive urban explorations that begin in Los Angeles and extend to engage range of cities, including key exam-ples from Asia to South America. Modern project can be seen in myriad forms across globe, so that city and suburb, taken together, exist in complex commingling of aesthetic, political, spatial, economic, technologi-cal, and social issues. Letter grading.
141. Technology I: Projections. (5) Laboratory, four hours; outside study, 11 hours. Limited to Architec-tural Studies majors. Introduction to techniques of spatial representation as they relate to architectural design. How to communicate using two- and three-di-mensional illumination. Analysis and design of techniques and opportunity afforded by moving between both. Analog techniques include orthographic and axonometric projection. Digital techniques focus on computer graphic modeling, including, but not limited to, bitmap and vector graphic imaging using Adobe suite and modeling using Rhinoceros. Letter grading.
142. Technology II: Building Materials and Meth-ods. (5) Lecture, three hours; outside study, 11 hours. Limited to Architectural Studies majors. Intro-duction to construction systems and materials in rela-tion to design, such as framing, bear wall, or hybrid systems. Graphic conventions and organization of construction documents. Letter grading.
143. Technology III: Digital Technology. (5) Labora-tory, four hours; outside study, 11 hours. Limited to Ar-chitectural Studies majors. Overview of three-dimen-sional representation and computer-aided design concepts, teaching applications of AutoCAD and Maya and their use relative to process of design and visual communi-cation. Basic representation methods and tools and introduction to additional concepts required to dy-namically interact with computer and to explore and understand communicative capacities of different methods of representation. Explanation of bitmap versus vector representations, abstractions, and constructs. Logical knowledge used in areas of design, how it can be identified, analyzed, and structured. Letter grading.
CM131. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Environment M131.) Lecture, three hours. Relationship of built envi-ronment to natural environment through whole sys-tems approach, with focus on sustainable design of buildings and planning of communities. Emphasis on energy efficiency, renewable energy, and appropriate use of resources, including materials, water, and land. Concurrently scheduled with course CM247A. 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 of selected 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 or seminar. 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/N/P or letter grading.
191. Interventions: Urban Humanities in Action (Capstone Studio). (4) Seminar, four hours; studio, two hours. Requisites: Digital Humanities 30, 151. Using Los Angeles as laboratory, students address is-sues of spatial justice through scholarly and practical urban interventions. Projects deploy spatial technolo-gies introduced in Digital Humanities 30 and theoret-ical knowledge learned in Digital Humanities 151 to create urban humanist action-projects. Letter grading.
199. Directed Research or Senior Project in Archi-tecture and Urban Design. (2 to 4) Tutorial, to be ar-ranged. Limited to juniors/seniors. Supervised indi-vidual research or investigation under guidance of fac-ulty mentor. Culuminating paper or project required. May be repeated for credit. Individual contract re-quired. P/N/P 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 cur-rent 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 min-utes; laboratory, 90 minutes; outside study, three hours. Introduction to basic concepts, skills, and theo-retical aspects of computer-aided architecture design and microcomputer skills. Applications selected are com-monly found in professional offices. Two- and three-di-mensional representation (e.g., painting, drafting, multi-media, and modeling). Letter grading.
226C. Computer Visualization. (4) Lecture, three hours. Designed for graduate students. Concept and techniques of computer visualization of artifacts, in-cluding 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. Knowledge representation, abstractions, and constructions. Logical structure of design information. Development of knowledge used in areas of design, how 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 be-ings 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 CM130. S/U or letter grading.
CM247A. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Urban Planning M247A.) Lecture, three hours. Relationship of built environment to natural environment through whole systems approach, with focus on sustainable design of buildings and planning of communities. Emphasis on energy efficiency, renewable energy, and appro-priate use of resources, including materials, water, and land. Concurrently scheduled with course CM153. Letter grading.
M271. Elements of Urban Design. (4) (Same as Urban Planning M271.) Lecture, three hours. Introduction of basic knowledge of elements and methods of urban design. Multidisciplinary approach leading to understanding of political, socioeconomic, and technologi-cal frameworks of urban design and its dynamic inter-relations. S/U or letter grading.
M272. Real Estate Development and Finance. (4) (Same as Urban Planning M272.) Lecture, two hours; workshop, two hours; outside study, eight hours. Re-quisites: Urban Planning 220A, 205. 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 inter-active and adapted to meet economic feasibility tests. S/U or letter grading.
286. Roman Architecture and Urbanism. (4) Lec-ture, three hours. Examination of architectural and urban developments during Roman period, from ar-chaic age to late Empire. Built environments of ancient world investigated from various perspectives, with consideration to programming, symbolism, and viewing, as well as to technological, aesthetic, and po-litical aspects. S/U or letter grading.
288. Renaissance Architecture and Urbanism. (4) Lecture, three hours. Examination of architectural de-velopments from 15th to 17th century. Primary focus on Italian peninsula, and extending to entire Medi-terranean basin. Analysis of individual structures, cities, and landscape designs to reveal changing cultural and theoretical values, as well as specific aesthetic and iconographic content. S/U or letter grading.
228. 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.

229. Special Topics in Critical Studies in Architectural Culture. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Designed for graduate students. Exploration of how architecture operates in relation to wider cultural, historical, and theoretical issues. May be repeated for maximum of 30 units. Letter grading.

230. Theory of Architectural Programming. (4) Lecture, one hour; discussion, one hour; laboratory, two 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; working with resident leaders at Los Angeles City public housing developments. S/U or letter grading.

231. Introductory Theory Study. (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 establishment of basic skills, projects are developed that allow for experimentation of its intrinsic possibilities. Students undertake series of closely controlled exercises dealing with combined elements and then design small project. S/U or letter grading.

232. Building Design Studio. (6) Studio, 12 hours; outside study, six hours. Requisite: 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 develop intended forms and concepts. Letter grading.

233. Building Design with Landscape Studio. (6) Studio, 12 hours; outside study, six hours. Requisite: course 412. Introduction to theoretical and technical issues such as site planning, design, building typology; Building design and site planning in relation to water, landforms, and plants in natural light, heat, and ventilation. Letter grading.

234. Major Building Design Studio. (6) Studio, 12 hours; outside study, six hours. Requisite: 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 and structural expression. Emphasis either on treatment in breadth of large-scale projects or exploration in detail of smaller-scale projects. Students learn to integrate structure and environment and present their ideas in graphic or model form. Letter grading.

235. Comprehensive Studio. (6) Studio, 12 hours; outside study, six hours. Requisite: course 414. Cumulation of core sequence (courses 411 through 414), with focus on development phase of project. Technical concerns such as lighting, material innovation, sustainability, construction documents, and building envelopes to be considered critical to generation of architectural form and/ or design of single building project. Letter grading.

236. Structures I. (4) Lecture, three hours. Preparation: satisfactory completion of intermediate-level studio courses (412, 413, 414) or MArch I student. Students may choose (through lottery) from several different advanced studio projects focusing on special topics in architectural and urban design to be offered by faculty members. May be repeated for credit. Letter grading.

403A-403B-403C. Research Studios. (2, 2–3) For course 403A, 403B: seminar, three hours; outside study, three hours; for course 403C: studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of intermediate-level studio courses (412, 413, 414, 415). Course 403A is requisite to 403B, which is requisite to 403C. In-depth research phase (courses 403A, 403B) and advanced studio project (course 403C), with focus on number of different disciplinary topics in architecture and coherent design. In Progress (403A, 403B) and letter (403C) grading.

404. Joint Planning/Architecture Studio. (4) Same as Urban Planning M404. Lecture, one hour; discussion, one hour; laboratory, 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; working with resident leaders at Los Angeles City public housing developments. S/U or letter grading.

411. Introductory Theory Study. (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 establishment of basic skills, projects are developed that allow for experimentation of its intrinsic possibilities. Students undertake series of closely controlled exercises dealing with combined elements and then design small project. S/U or letter grading.

412. Building Design Studio. (6) Studio, 12 hours; outside study, six hours. Requisite: 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 develop intended forms and concepts. Letter grading.

413. Building Design with Landscape Studio. (6) Studio, 12 hours; outside study, six hours. Requisite: course 412. Introduction to theoretical and technical issues such as site planning, 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. Requisite: 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 and structural expression. Emphasis either on treatment in breadth of large-scale projects or exploration in detail of smaller-scale projects. Students learn to integrate structure and environment and present their ideas in graphic or model form. Letter grading.

415. Comprehensive Studio. (6) Studio, 12 hours; outside study, six hours. Requisite: course 414. Cumulation of core sequence (courses 411 through 414), with focus on development phase of project. Technical concerns such as lighting, material innovation, sustainability, construction documents, and building envelopes to be considered critical to generation of architectural form and/ or design of single building project. Letter grading.

431. Structures I. (4) Lecture, three hours. Preparation: satisfactory completion of intermediate-level studio courses (412, 413, 414) or MArch I student. Students may choose (through lottery) from several different advanced studio projects focusing on special topics in architectural and urban design to be offered by faculty members. May be repeated for credit. Letter grading.


441. Environmental Control Systems. (4) Lecture, four hours. Preparation: basic physics. Design of buildings that specifically respond to local climate; utilization of nat- ural energies, human thermal comfort; sun motion and solar control devices; and land- form to modify microclimate. S/U or letter grading.


455. Teaching Architectural History, Theory, and Criticism. (2, 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 prac- tices, professional development, and academic professions in the field of architecture. Readings and assignments to develop fundamental 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.

497. 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.

498. Comprehensive Examination Seminar. (4) Seminar, three hours; outside study, nine hours. Seminar: topics such as program, site planning, urban design, and integration of technical and structural 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 environment and present their ideas in graphic or model form. Letter grading.

501. Cooperative Programs. (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 outside entities. S/U grading.
new genres, painting and drawing, photography, and sculpture. 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, 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 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

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, 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
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.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 Department of Art 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. Fundamentals in technique, 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 of photography. 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 media at upper-division level. P/NP or letter grading.

11D. New Genres. (4) Studio, eight hours; five hours arranged. Introduction to projects in installation, performance, video, film, intermedia, and other nontraditional media and processes. P/NP or letter grading.

11E. Ceramics. (4) Studio, eight hours; five hours arranged. Shaping and firing of clay; traditional and nontraditional forms. Conceptual as well as technical work. 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 and independent practices as well as alternatives. Editing of still images, moving images, and sound. Review of use of tools, software, workflow, storage, and output modalities. Letter grading.

21A. Photographic Print. (2) Studio, four hours. Requisite: course 1B. Limited to Art majors. Not for credit to students with credit for course 20. Techniques and processes, including basics of shooting, editing, output, and display. Introduction to postproduction skills and tools for creating and altering images and producing high-quality printed images. Letter grading.

21B. Production: Moving Image and Sound. (2) Studio, four hours. Limited to Art majors. Open not 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, output, and display. Familiarization with production skills, equipment, setups, and standard practices used in creation of moving image and/or sound works. Instruction in use of cameras, lights, and microphones, and shooting and recording procedures and techniques, including handheld, rig-rig, dolly-shots, and green screens. Introduction to and development of facility with post-production software and processes of editing, animating, exporting, and presenting high-quality sound and moving image works. Letter 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 origins, 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. Examination of global forces underlying development of modernist thought on art and society from mid-19th through early-20th centuries. Exploration of origins, development, theory, and practice of modernism in context of colonialism and industrialization. Letter grading.

31C. Modernism and Its Discontents. (5) Lecture, three hours; discussion, one hour; field trips, three hours. Examination of the development of modernism and its postmodern counterpoints. Emphasis on modernism and its discontents as both independent expressive medium and as conceptually-driven approaches to art making. Letter grading.

70. Summer Art Institute: Special Topics in Studio. (3) Studio/lecture/field trips, 45 hours. Limited to high school students in Summer Art Institute. Two-week intensive in studio art covering range of media and contemporary art practices and combination of focused studio work, field study, critique, and final exhibition of student work. Offered only as part of Summer Institute. May be repeated once for credit. P/NP grading.

99. Student Research Program. (1 to 2) Laboratory, one hour; seminar, one hour; field trips, three hours. Art majors should complete courses 31A, 31B, and 31C in sequence in first year. Continued impact of modernism through emancipatory movements and poststructuralism. Conceptual, formal, and material developments in modernism and its discontents. May be repeated for maximum of 20 units. Letter grading.

100. Issues in Contemporary Art. (5) Lecture, three hours; discussion, one hour; screenings/research, 11 hours. Requisites: courses 31A, 31B, 31C. Selected topics in theoretical, critical, aesthetic, and historical studies and their relevance to practicing artists. May be repeated for maximum of 20 units. Letter grading.

130. Advanced Drawing. (5) Studio, eight hours; seven hours arranged. Requisite: course 1A. Drawing as both independent expressive medium and as means of visualizing. May be repeated for maximum of 20 units. Letter grading.

132. Survey of Critical Thought. (5) Lecture, three hours; discussion, one hour; screenings/research, 11 hours. Requisites: courses 31A, 31B, 31C. Overview of premodern, modern, and postmodern theory as reflected in critical frameworks from late 19th century to present. Introduction to elements of Marxism, critical theory, feminist and queer theory, indigenous critique, disability studies, black radical thought, and postcolonial thought. Syllabus may be changed from semester to semester. Specific topics may vary. May be repeated for maximum of 20 units. Letter grading.

133. Advanced Painting. (5) Studio, eight hours; seven hours arranged. Requisite: course 11A. Varied media and techniques; emphasis on work based on personal experience and critical analysis. May be repeated for maximum of 20 units. Letter grading.

135A. Advanced Sculpture: Topics in Anti-Racism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisite: course 11B. Varied approaches to historical and contemporary spectrums that highlight anti-racism, equity, diversity, and inclusion as expressed in objects, sculpture, and built environment. Combination of courses 145 and 145A may be repeated for maximum of 20 units. Letter grading.

135B. Advanced Ceramics: Topics in Anti-Racism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisite: course 11B. Varied approaches to historical and contemporary spectrums that highlight anti-racism, equity, diversity, and inclusion as expressed in objects, sculpture, and built environment. Combination of courses 145 and 145A may be repeated for maximum of 20 units. Letter grading.

147A. Advanced Photography: Topics in Anti-Racism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisite: course 11B. Varied approaches to photography’s history, media, and content to develop students’ technical, expressive, and conceptual tools to understand and explore anti-racism, equity, diversity, and inclusion. Combination of courses 147 and 147A may be repeated for maximum of 20 units. Letter grading.

148. Advanced Ceramics. (5) Studio, five hours; seven hours arranged. Requisite: course 11E. Selected surveys in ceramic media and techniques. May be repeated for maximum of 20 units. Letter grading.

148A. Advanced Ceramics: Topics in Anti-Racism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisite: course 11E. Varied approaches to clay media and content to develop students’ technical, expressive, and conceptual tools to understand and explore anti-racism, equity, diversity, and inclusion. Combination of courses 148 and 148A may be repeated for maximum of 20 units. Letter grading.

149. Advanced Interdisciplinary Studio. (5) Studio, eight hours; seven hours arranged. Requisites: courses 31A, 31B, 31C. Varied project-based studies in conceptually-driven approaches to art making in which students’ core concerns and aims determine all aspects of projects, including medium, method, and presentation. May be repeated for maximum of 20 units. Letter grading.

149A. Advanced Interdisciplinary Studio: Topics in Anti-Racism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisites: courses 31A, 31B, 31C. Varied project-based studies in conceptually-driven approaches to art making that advance anti-racism, equity, diversity, and inclusion. Students’ core concerns and aims determine all aspects of projects, including medium, method, and presentation context. Combination of courses 149 and 149A may be repeated for maximum of 20 units. Letter grading.

150. Senior Studio. (5) Studio, eight hours; seven hours arranged. Limited to seniors. Advanced studio projects, with emphasis on development of individual creative work and ideas. Letter grading.

170. Special Topics in Studio. (2 to 4) Studio/museum visits, four to eight hours; two to four hours arranged. Current themes in art theory, practice, and contemporary, woodcut, silkscreen and engraving, lithography, silk screen, mixed media. May be repeated for maximum of 20 units. Letter grading.
criticism, offering students opportunity to explore these issues in studio context through critique of work and discussion of recommended readings. May be repeated for maximum of 16 units. P/NP or letter grading.

C180. Seminar, Art. (4) Seminar, three hours. Limited to junior/senior Art majors. Advanced topics in critical theory and study of contemporary art, with emphasis on individuals, issues, and methodologies. Possible grading. Prerequisites: at least one course from 100 through 150. Examination of temporary exhibition and its associated field of publications as intellectual system of meaning, beginning with individual works and proceeding to on-site analysis of current exhibitions. Concurrently scheduled with course C280. Letter grading.

C181. Exhibition and System. (4) Seminar, four hours. Preparation and planning 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 stages of production to full scale and community approval. P/NP or letter grading.

C186C. Beyond Mexican Mural: Advanced Muralism and Community Development. (4) Same as Chicana/o and Central American Studies M186C and World Arts and Cultures M125C.) Studio/lecture, six hours. Requisites: courses M186B, M186BL. Corequisite: course M186CL. 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 stages of production to full scale and community approval. P/NP or letter grading.

C187. Contemporary Art Collections in Los Angeles. (2) Seminar, three hours; outside study, three hours. Limited to junior/senior Art 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.

C190. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topics. Individual contract with faculty mentor required. May be repeated for credit. Letter grading.

C193. Journal Clubs: 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.

C195. Community Internships in Art. (2 to 4) Tutorial, six hours. Limited to juniors/seniors. Art-related internship in supervised setting in community agency, business, or institution. Students meet on regular basis with instructor and provide periodic reports of their experience. Only 4 units may be applied toward upper-division art elective major requirement. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

C197. Individual Studies in Art. (2 to 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Corequisite: course 190. Limited to junior/senior Art majors. Individual intensive studio project or study, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of project or mastery of subject matter required. May be repeated for maximum of 8 units. Individual contract required. Letter 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, lithograph, woodcut, silk screen, photo printmaking, 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 study and research emphasizes adja- cent studies in theoretical and critical analysis. Specific attention to original, expressive, social, and humanistic values of art. May be repeated for credit with consent of adviser. Letter grading.

274. Graduate Photography. (2 to 8) Studio, eight hours. Studies concentrating on development of individual student’s/artist’s work. Individual study and research emphasizes adja- cent studies in theoretical and critical analysis. Specific attention to original, expressive, social, and humanistic values of art. May be repeated for credit with consent of adviser. Letter grading.

275. Graduate New Genres. (2 to 8) Studio, eight hours. Studies in alternative media, including installation, performance, video, film, and other nontraditional media and processes. May be repeated for credit with consent of adviser. Letter grading.

276. Graduate Group Critique. (4) Discussion, four hours; tutorial, to be arranged. Group critique/discus- sion of students’ research. Additional tutorial meetings by appointment with instructor. May be repeated for credit. Letter grading.

277. Graduate Ceramics. (2 to 8) Studio, eight hours. Studies in ceramics and art with investigation of tradi- tional and experimental processes and intellectual ap- proaches to studio practice in ceramic making. Em- phasis on development of significant body of original work reflecting student’s expressive and theoretical concerns. May be repeated for credit. Letter grading.

278. Interdisciplinary Studio. (2 to 8) Studio, eight hours. Tutorial focused on directed research, studio visits, and group discussions of recommended read- ings. May be repeated for credit. S/U or letter grading.

279. Open Area Studio. (2 to 8) Studio, 12 hours. Limited to Art MFA students in medium-specific course in which students work to establish, expand, and deepen their studio practices, including technical and research methods, to develop significant body of
original artwork that reflects their concerns and furthers their artistic goals. May be repeated for credit. Letter grading.

C280. Seminar: Art. (4) Seminar, three hours. Advanced topics in critical theory and study of contemporary art, with emphasis on individuals, issues, and methodologies. Possible areas of study from structuralism, deconstruction, feminist and psychoanalytic theory, commodification, and censorship. May be repeated for credit. Concurrently scheduled with course C189. Letter grading.

C281. Exhibition and System. (4) Seminar, four hours. Examination of temporary exhibition and its associated field of publications as intertextual system of meaning, beginning with individual works and proceeding to on-site analysis of current exhibitions. May be repeated for credit. Concurrently scheduled with course C181. Letter grading.

C282. Exhibitions and Public Programs. (4) Seminar, four hours. Introduction to principles of program planning and community development in relation to visual arts and work of art museums. May be repeated for credit. Concurrently scheduled with course C182. Letter grading.

C283. Special Topics in Art. (2 or 4) Seminar, six hours (2-unit course) or 12 hours (4-unit course). Selected topics in art explored through variety of approaches that may include projects, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. Concurrently scheduled with course C183. Letter grading.

C287. Contemporary Art Collections in Los Angeles. (2) Seminar, three hours; outside study, three hours. 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 C187. 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.

400A-400B. Visiting Artists Studio. (2–2) Studio, six hours. Designed for MFA students. Introduction to visiting artists in their area of study, with focus on one-on-one critiques with wide range of practitioners. In Progress (400A) and S/U (400B) grading.

400C. Visiting Artists Studio. (4) Studio, 12 hours. Limited to graduate art students. Introduction to visiting artists in their area of study, with focus on one-on-one critiques with wide range of practitioners. S/U grading.

401. MFA Working Groups. (2) Research group meeting, two hours. Limited to MFA students. Three or more MFA candidates propose research and/or studio topic and invite Art Department faculty member to mentor group/topic. May be repeated for credit. S/U 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 pedagogy and classroom mechanics. Problems and practices of teaching art 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.

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. 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 Master’s Comprehensive Examination. (2 to 12) Tutorial, to be arranged. May not be applied toward MA or MFA course requirements. May be repeated. S/U grading.

ART HISTORY
College of Letters and Science
100 Dodd Hall
Box 951417
Los Angeles, CA 90095-1417
Art History
310-206-6905

Miwon Kwon, PhD, Chair

Faculty Roster

Professors
George T. Baker, PhD
Charlene Villaseñor Black, PhD
Robert L. Brown, PhD
Sharon E. Gerstel, PhD (George P. Kolovos Family Centennial Term Professor of Hellenic Studies)
Miwon Kwon, PhD (Walter Hopps Professor of Modern and Contemporary Art)
Hui-Shu Lee, PhD
Saloni Mathur, PhD
Debora L. Silverman, PhD (Presidential Professor of Modern European History)
Lothar von Falkenhhausen, PhD
Glenn Wharton, PhD
Bronwen Wilson, PhD

Professors Emeriti
Susan B. Downey, PhD
Burglind Jungmann, PhD
Cecelia F. Klein, PhD
David M. Kunzle, PhD
Steven D. Nelson, PhD
David A. Scott, PhD
Dell Upton, PhD
Anthony Vidler, DiplArch
Joanna C. Woods-Marsden, PhD

Associate Professors
Lamia Balafrej, PhD
Meredith M. Cohen, PhD
Stella E. Nair, PhD

Assistant Professors
Zirnat Chowdhury, PhD
Kristopher W. Kersey, PhD

Adjunct Professor
John M.D. Pohl, PhD

Adjunct Assistant Professors
Maria C. Berms, PhD
Gregory T. Harwell, PhD

Overview
The Department of Art History endorses an interdisciplinary and intercultural approach to the 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 the canon, rethink the relationship between major art historical disciplines and art historical methodologies, and expand 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
• Identification and characterization of significant artistic traditions from chronologically and culturally disparate societies
• 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 them within the larger interpretive traditions of the field

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 prerequisites to certain upper-division courses.

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.

The Major

Required: Eleven upper-division art history courses as follows:


3. Additional art history electives selected from courses 100 through 185 (20 units minimum); courses 196, 197A, 197B may also be included. With prior approval of the undergraduate adviser, one of these courses may be taken in another department.

While the department does not require language training beyond the College requirement, Art History majors, particularly those planning graduate work, are strongly encouraged to study foreign languages beyond what is required by the College.

Policies

Each course must be taken for a letter grade.

Honors Program

The honors program is designed for Art History majors who are interested in carrying out an independent research project that culminates in a departmental honors thesis of approximately 30 pages. The program gives qualified students the opportunity to work closely with individual professors in an in-depth supervised research and writing project.

All senior Art History majors who have completed a minimum of six upper-division art history courses with a departmental grade-point average of 3.5 or better and an overall GPA of 3.0 or better are eligible to apply. Consult the art history student affairs officer no later than the beginning of fall quarter of the senior year.

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 courses in the department and an overall GPA of 3.0 or better, and (3) complete Art History 198A and 198B with grades of A– or better.

To qualify for graduation with highest honors, students must (1) complete all requirements for the major, (2) have a cumulative GPA of 3.85 or better in upper-division courses in the department and an overall GPA of 3.65 or better, and (3) complete courses 198A and 198B with grades of A.

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 gradeable units, and file a petition with the student affairs officer in 206B Dodd Hall, 310-825-3992. Students must (1) complete all requirements for the major, (2) have a cumulative GPA of 3.85 or better in upper-division courses in the department and an overall GPA of 3.65 or better, and (3) complete courses 198A and 198B with grades of A– or better.

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. Each minor course must be taken for a letter grade (unless the course is graded only on a P/NP basis), 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

Art History MA, PhD

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Art 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.

20. Ancient Art. (5) Lecture; three hours; quiz; one hour; museum field trips. Prehistoric, Egyptian, Mesopotamian, Aegean, Greek, Hellenistic, and Roman art and architecture. P/NP or letter grading.

22. Renaissance and Baroque Art. (5) Lecture, three hours; discussion, one hour. Survey of Renaissance and baroque art. P/NP or letter grading.

23. Modern Art. (5) Lecture, three hours; discussion, one hour; museum field trips. History of modern art from 1860s to 1960s, from Manet and impressionists to pop art and minimalism. Study of origins and social functions, as well as aesthetic innovations and philosophical dilemmas of modernism. P/NP or letter grading.

24. Architecture in Modern World. (5) Lecture, three hours; discussion, one hour. Introduction to study of architectural history through examination of built world of past two centuries. Building technologies and forms of past two centuries. Building technologies and forms of modern built environment that is both diverse and increasingly connected. Focus on factors that have affected architecture globally and those that give rise to pop art and minimalism. Study of origins and social and political contexts. Examination of debates about modern architecture, sculpture, painting, and minor arts from mid-20th century to present. P/NP or letter grading.

Upper-Division Courses

100. Art Historical Theories and Methodologies. (4) Seminar, three hours. Requisites: courses 20 through 31. Criminal 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 Ancient Near East CM101A. Lecture, three hours. Study of architecture, sculpture, painting, and minor arts from earliest periods to end of New 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 from New Kingdom to Greco-Roman period. 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 buildings in Egypt, and their study illuminates traditions of artistic representation, architectural development, and social and political communications exchanged throughout all of ancient Egypt. Investigation of ritual linking of temples and their social and political contexts. Letter grading.

M110D. Art and Death in Ancient Egypt. (4) Same as Ancient Near East M101D. Lecture, four hours; fieldwork, one hour. Focus on ancient temples of city of Thebes (modern day Luxor). Theban temples are some of best-preserved buildings in Egypt, and their study illuminates traditions of artistic representation, architectural development, and social and political communications exchanged throughout all of ancient Egypt. Investigation of ritual linking of temples and their social and political contexts. Letter grading.

M110E. Ancient Egyptian Painting. (4) Same as Ancient Near East M101E. Lecture, four hours; fieldwork, one hour. Focus on ancient Egyptian procession and funerary art and their social and political contexts. Letter grading.

M111. Minoan Art and Archaeology. (4) Same as Classics M153A. Lecture, three hours. Requisite: course 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 M153B. Lecture, three hours. Requisite: course 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. Archaic Greek Art and Archaeology. (4) Same as Classics M153C. Lecture, three hours. Requisite: course 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 M153D. Lecture, three hours. Requisite: course 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 M153E. Lecture, three hours. Requisite: course 20 or Classics 10 or 51A. Study of development of art and architecture of Greek world from approximately 350 through 30 BC. P/NP or letter grading.

M113A. Etruscan Art and Archaeology. (4) Same as Classics M153F. Lecture, three hours. Requisite: course 20 or Classics 5 or 51B. Study of art of Etruria from 850 to 600 BC. P/NP or letter grading.

M113B. Roman Art and Archaeology. (4) Same as Classics M153G. Lecture, three hours. Requisite: course 20 or Classics 20 or 51B. Study of art and architecture of Rome and Empire from circa 300 BC to AD 300. P/NP or letter grading.

M113C. Late Roman Art. (4) Same as Classics M153H. Lecture, three hours. Requisite: course 20 or Classics 20 or 51B. Study of art of Roman Empire from 2nd through 4th century (AD). P/NP or letter grading.

M114A-M114B-M114C. Classical Archaeology. (4–4–4) Same as Classics M153I-M153J-M153K. Discussion, one hour; museum field trips. General introduction to study of Egyptian, Greek, and Roman architecture, sculpture, and painting. May be repeated for credit with department consent. P/NP or letter grading.

M114D. 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. Concurrently scheduled with course C214D. P/NP or letter grading.

M115A. Late Antique Art and Architecture. (4) Same as Classics M153L. Lecture, three hours. Art and architecture of late Roman Empire and early Christian world. Concurrently scheduled with course C215A. P/NP or letter grading.


M116B. Late Byzantine Art and Architecture. (4) Lecture, three hours. Theory and development of Byzantine art from 1204 to 1453. Concurrently scheduled with course C216B. P/NP or letter grading.

M117A. Medieval Archaeology. (4) Lecture, three hours. Archaeology of medieval world. Concurrently scheduled with course C217A. P/NP or letter grading.

M117B. 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.

M118A. Medieval Armenian Art. (4) Same as Armenian M118A. Lecture, three hours. Examination of cultural and historical impact of Armenian miniature paintings, P/NP or letter grading.
M118B. Armenian Painting, 17th to 20th Century. (4) (Same as Armenian M117.) Lecture, three hours. Overview of development of modern Armenian painting out of its matrix in 17th and 18th centuries. P/NP or letter grading.

C110C. 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. May be repeated twice for credit. Concurrently scheduled with course C218. P/NP or letter grading.

127A. European Art of 17th and 18th Centuries. (4) Lecture, three hours. Requisite: course one from courses 200 to 212, 215, 216, 217, and 218. 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 (when scheduled). 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.

C218-C218B-C218C. History of Photography. (4–6) Concurrently scheduled with courses C228A-C228B-C228C. Lecture, three hours. Study of origin, social functions, and development of photography in 19th and early 20th centuries, from Niepce to Atget. C218A. 1839 to 1910. Lecture, three hours. Study of origin, social functions, and development of photography in 19th and early 20th centuries, from Niepce to Atget. C218B. 1910 to 1930. Lecture, three hours. Study of origin, social functions, and development of photography in 19th and early 20th centuries, from Niepce to Atget. C218C. 1930 to present. Lecture, four hours; discussion, one hour. History of photography in 20th century, with special attention to photography’s entrance into project of avant-garde and its formation in postwar avant-garde. P/NP or letter grading. C218A, C218B, C218C. Selected topics. Lecture, three hours. Variable topics in history of photography that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit.


C231A. Contemporary Art, 1980s to 1990s. (4) Lecture, three hours; discussion, one hour. Requisite: course 23. Changing topics in contemporary art (post-1945) that reflect interests of individual regular and/or visiting faculty members. May be repeated once for credit. P/NP or letter grading.

C233A. American Art before Civil War. (4) Lecture, three hours. Painting, sculpture, and architecture in U.S. from colonial period through 1861. Concurrently scheduled with course C233B. P/NP or letter grading.

C233B. American Art in Gilded Age, 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.

C233C. American Art, 1900 to 1945. (4) Lecture, three hours. Painting, sculpture, and architecture in U.S. from turn of century to 1945. Concurrently scheduled with course C233C. P/NP or letter grading.

C235A. African American Art before 1900. (4) (Same as African American Studies CM135A.) Lecture, three hours. Detailed inquiry into work to circa 1900 of African American artists whose works provide insightful critical commentary on major features of African American life and society. Concurrently scheduled with course CM235A. P/NP or letter grading.

C235B. African American Art, 1900 to 1963. (4) (Same as African American Studies CM135B.) 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 in codification of modern black life in U.S. Concurrently scheduled with course CM235B. P/NP or letter grading.

C236A. Selected Topics in African American Art. (4) Lecture, three hours. Variable topics in African American art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C236A. P/NP or letter grading.

C237. Arts of Native North America. (4) Lecture, three hours. Survey of paintings, sculpture, and other arts from Inuit to peoples of Caribbean and Southwestern U.S. P/NP or letter grading.

CM139A. Maya Art and Architecture. (4) (Formerly numbered C139A.) (Same as Central American Studies M137.) Lecture, three hours. Requisite: course 27. Study of art of selected Maya-speaking cultures of southern Mesoamerica from circa 200 B.C.-1524 C.E. to Conquest, with particular emphasis on history and iconography. Concurrently scheduled with course C239A. P/NP or letter grading.
C139B. Aztec Art and Architecture. (4) Lecture, three hours. Requisite course 27. Painting, sculpture, architecture, and other arts of Nahua-speaking peoples of central Mexico, with emphasis on their social and historical context and major scholarly debates. Concurrently scheduled with course C239B. P/NP or letter grading.

C139C. Inca Art and Architecture. (4) Lecture, three hours. Exploration of art, architecture, and urbanism of Incas 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 C239C. P/NP or letter grading.

C140. Selected Topics in Arts of Indigenous America. (4) Lecture, three hours. Topics in artistic production of Native people across Americas that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C240A. P/NP or letter grading.


C142A. Mexican Art in Modern Age. (4) Lecture, three hours. Mexican art of 19th and 20th centuries, from foundation of academy in 1785 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 C242A. P/NP or letter grading.

C142B. Latin American Art of 20th Century. (4) Lecture, three hours; discussion, one hour (when scheduled). Modernist and contemporary art and architecture of selected Latin American countries, including political, social, and aesthetic contexts. Concurrently scheduled with course C242B. P/NP or letter grading.

C143. Selected Topics in Latin American Art. (4) Lecture, three hours. Variable topics in Latin American art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. P/NP or letter grading.

C144. Caribbean Art. (4) Lecture, three hours. Cultural history and visual culture of Caribbean, P/NP or letter grading.

C145A. Architecture and Urbanism in Africa. (4) Lecture, three hours. Survey of African built environment at various moments and different places from before 5th century BC to contemporary time. Emphasis on cultural, social, and historical contexts of architecture, gender, and space, and contemporary African cities. Concurrently scheduled with course C245A. P/NP or letter grading.

C145B. Contemporary Arts of 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 and visual culture. Requisite 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 C245B. P/NP or letter grading.

C146A. 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 C246A. P/NP or letter grading.

C146B. 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 C246B. P/NP or letter grading.

C146C. 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 C246C. P/NP or letter grading.

C148A. Advanced Chinese Art. (4) Lecture, three hours. Study in Chinese art of 19th and 20th centuries, with emphasis on modern and contemporary art. Concurrently scheduled with course C248A. P/NP or letter grading.

C148B. Gardens in Chinese Art and Culture. (4) Lecture, three hours. Overview of practice, theory, 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 C248B. P/NP or letter grading.


C150A. Japanese Art. (4) Lecture, three hours. Requisite course 150A. Study in Japanese art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C250A. P/NP or letter grading.


C151. Selected Topics in Japanese Art. (4) Lecture, three hours; discussion, one hour (when scheduled). Variable topics in Japanese art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C251A. P/NP or letter grading.

C152A. History of Korea. (4) Lecture, three hours; museum field trip. Introduction to arts and archaeology on Korean peninsula from Neolithic beginnings to early 20th century through analysis and discussion of selection of monuments and objects within technologic- ical, stylistic, religious, cultural, and sociopolitical contexts. Emphasis on ichology, stylistic, religious, cultural, and sociopolitical contexts. Examination of construction of concepts of his- torical and artistic interdependence and technological advances, with regard to historical and contemporary East Asian cultural and political interrelations. P/NP or letter grading.

C152B. History of Korean Painting. (4) Lecture, three hours. Limited to juniors/seniors. Korean painting history from Three Kingdoms period to 19th century, examined within cultural and sociopolitical contexts. Special emphasis on political contexts and social status of artists during Choson dynasty (1392 to 1910). Concurrently scheduled with course C252A. P/NP or letter grading.

C152C. History of Korean Ceramics. (4) Lecture, three hours. Limited to juniors/seniors. History of Ko- rean ceramics from Neolithic period to 19th century, with special emphasis on technological and stylistic developments. Concurrently scheduled with course C252B. P/NP or letter grading.

C152D. History of Korean Buddhist Art. (4) Lecture, three hours. Limited to juniors/seniors. History of Ko- rean Buddhist art from Three Kingdoms period to Choson dynasty, with special emphasis on Buddhist iconography and relationship between sculpture, painting, and architecture. Concurrently scheduled with course C252C. P/NP or letter grading.

C153. Selected Topics in Korean Art. (4) Lecture, three hours. Limited to juniors/seniors. 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 C253A. P/NP or letter grading.

154A. Early Art of India. (4) Lecture, three hours. Not open to freshmen. Study in art from 10th to 19th century. Decline of Buddhist art, last efflores- cence of Hindu architecture, Muslim painting and archi- tecture, and Rajput painting. P/NP or letter grading.

C154C. Advanced Indian Art. (4) Lecture, three hours. Requisite: course 154A. Study in Indian sculpture and architecture. Concurrently scheduled with course C254A. P/NP or letter grading.

154D. Modern and Contemporary South Asian Art. (4) Lecture, three hours. Open to freshmen. Study of modern and contemporary South Asian art from 1900 to present. P/NP or letter grading.

C155. 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 C255A. 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 C258A. 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 cen- turies. 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 current museum 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 artworks, exhibitions, and associated public issues and distributed cultural resources, including museum and gallery institutions, practices, and policies. Concurrently scheduled with course C270B. Letter grading.
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 analysis. Preparation: 10 minutes. Some lectures. May be repeated for credit with consent of advisor. S/U or letter grading.

201. Topics in Historiography of Art History. (4) Seminar, three hours. Critical examination of historiographic traditions of specific areas and fields within discipline of art history, concentrating on particular time periods, geographical areas, artistic traditions, or work of one or more authors. May be repeated for credit with consent of advisor. S/U or letter grading.

202. Topics in Theory and Practice in Art History. (4) Seminar, three hours. Focuses on the study of one or more specific topics: Conceptual Art, Contemporary Art, Conceptual Art, Conceptual Art. 216 / Art History

187SC. 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 BBS course. Individual contracts 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 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.

195. Museum Studies Internship. (1) Tutorial. Seminar, three hours. Art and architecture of late Roman and Byzantine periods, sites, or artistic media. May be repeated for credit with consent of advisor. S/U or letter grading.

196. Research Apprenticeship in Art History. (2 to 4) Tutorial. Seminar, three hours. Art and architecture of late Roman and Byzantine periods, sites, or artistic media. May be repeated for credit with consent of advisor. S/U or letter grading.

197A. Individual Studies in Art History. (2 to 4) Tutorial, three hours per week per unit. Limited to seniors/juniors. 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.

197B. Individual Capstone Studies. (2) Tutorial, two hours. Limited to departmental junior/senior majors and minors. Guided study led by faculty supervisor. May be repeated for credit with consent of advisor. S/U or letter grading.

197C. Individual Capstone Studies. (2) Tutorial, two hours. Limited to departmental junior/senior majors and minors. Guided study led by faculty supervisor. May be repeated for credit with consent of advisor. S/U or letter grading.

210. Egyptian Art. (4) Seminar, two hours. May be repeated for credit with consent of advisor. S/U or letter grading.

212A. Topics in Aegean Art. (4) Seminar, two hours. May be repeated for credit with consent of advisor. S/U or letter grading.

212B. Topics in Classical Art. (4) Seminar, two hours. Studies in Parthian art, Sites-by-site survey of Near East (Afghanistan, Iran, Iraq, Syria) during Late Achaemenid period. May be repeated for credit with consent of advisor. S/U or letter grading.

212C. Classical Art. (4) Seminar, two hours. Studies in Greco-Roman art and archaeology. May be repeated for credit with consent of advisor. S/U or letter grading.

214D. Selected Topics in Ancient Art. (4) Lecture, three hours. May be repeated for credit. Concurrently scheduled with course C114D. S/U or letter grading.

215A. Late Antique Art and Architecture. (4) Lecture, three hours. Late Antique Art and Architecture of late Roman Empire and early Christian world. Concurrently scheduled with course CM115A. S/U or letter grading.

215B. Early Medieval Art and Architecture. (4) Lecture, three hours. May be repeated for credit with consent of advisor. S/U or letter grading.

215D. Gothic Art and Architecture. (4) Lecture, three hours. May be repeated for credit with consent of advisor. S/U or letter grading.

215F. Medieval Paris. (4) Lecture, three hours. May be repeated for credit with consent of advisor. S/U or letter grading.
C216A. Middle Byzantine Art and Architecture. (4)

C216B. Late Byzantine Art and Architecture. (4)
Lecture, three hours. Theory and development of Byzantine art from 1204 to 1453. Concurrently scheduled with course C116B. S/U or letter grading.

C217A. Medieval Archaeology. (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 C117B. S/U or letter grading.

C217B. 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 C117A. S/U or letter grading.

217C. Medieval Art. (4) Seminar, two hours. Studies in selected topics in Byzantine and European medieval art. May be repeated for credit with consent of adviser. S/U or letter grading.

217D. Byzantine Art, Architecture, and Archaeology. (4) Seminar, two hours. Selected topics in Byzantine art and architecture that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C117B. S/U or letter grading.

218. 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. May be repeated twice for credit. Concurrently scheduled with course C118C. S/U or letter grading.

C220A. 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 C120. S/U or letter grading.

C220B. Advanced Studies in Islamic Art. (4)
Seminar, three hours. Monuments or theoretical problems related to Islamic culture and artistic production. May be repeated for credit with consent of adviser. S/U or letter grading.

C222A. Italian Renaissance Art. (4) Seminar, two hours. Preparation: knowledge of Italian. Study of various aspects of Leonardo’s theoretical approach to art in terms of sources and impact on followers. May be repeated for credit with consent of adviser. S/U or letter grading.

C224A. Northern Renaissance Art. (4) Seminar, two hours. Preparation: knowledge of German. Emphasis on selected topic (e.g., particular artist, trend, or problem). Research papers and oral reports required. May be repeated for credit with consent of adviser. S/U or letter grading.

C225. Southern Baroque Art. (4) Lecture, three hours. Art and architecture of Spain or Italy, 16th to 17th century. Concurrently scheduled with course C125A. S/U or letter grading.

225B. Early Modern Art. (4) Seminar, three hours. Emphasis on selected topic (e.g., particular artist, trend, or problem). Research papers and oral reports required. Language requirements depend on area of focus. May be repeated for credit with consent of adviser. S/U or letter grading.

C226. 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 C126. S/U or letter grading.


C233A. American Art before Civil War. (4) Lecture, three hours. Painting, sculpture, and architecture in U.S. from Colonial period to 1865. Concurrently scheduled with course C133A. S/U or letter grading.

C233B. American Art in Gilded Age, 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 C133B. S/U or letter grading.

C233C. American Art, 1900 to 1945. (4) Lecture, three hours. Painting, sculpture, and photography in U.S. from 1900 to 1945. Concurrently scheduled with course C133C. S/U or letter grading.

234. American Art. (4) Seminar, two hours. Requisite: course C233A or C233B or C233C. Depending on topic. Topics in American art from Colonial period to present. Discussion of weekly readings, student oral presentations, and papers. May be repeated for credit with consent of adviser. S/U or letter grading.

C235A. Brazilian Art, 18th and 19th centuries. (4) Same as Latin American Studies LM235A.) Lecture, three hours. Variable topics in Brazilian art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course CM135A. S/U or letter grading.

C236B. Topics in African American Art. (4) Same as African American Studies CM236B.) Lecture, three hours. Detailed inquiry into work to circa 1900 of African American artists whose works provide insightful and critical commentary about major features of American life and society. Concurrently scheduled with course CM136B. S/U or letter grading.


C239A. Maya Art and Architecture. (4) Lecture, three hours. Requisite: course 27. Study of art of selected Mayan-speaking peoples 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 other arts of Nahua-spaking peoples of central Mexico, with emphasis on their social and historical context and major scholarly debates. Concurrently scheduled with course C139B. S/U or letter grading.

C239C. Inca Art and Architecture. (4) Lecture, three hours. Exploration of art, architecture, and urbanism of Incas from their empire’s height in late 15th century to their political and cultural fragmentation during Spanish occupation of South America. May be repeated for credit. 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 beyond U.S. 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 1785 to present day. Study of art and revolution, muralism, surrealism, indigenism, postcolonialism, and postmodernism in painting, sculpture, photography, and architecture. Concurrently scheduled with course C142A. S/U or letter grading.

C242B. Latin American Art of 20th Century. (4) Lecture, three hours. Concurrently scheduled with course C242B. Mainstream modern and contemporary art and architecture of selected Latin American countries, including both modernist and postmodernist forms, consisting in context of social and political concerns, both national and international. Concurrently scheduled with course C142B. S/U or letter grading.

M243. Hemispheric and Transnational Approaches to Contemporary Art in Americas. (4) (Same as Chicana/o and Chicano/a Studies M203.) Seminar, three hours. Critical examination of recent publications in arts, including museum exhibition catalog, as hemispheric and transnational approaches to contemporary Latin American art is evaluated. Concurrently scheduled with course C148C. Three hours. Letter grading.

C245A. Architecture and Urbanism in Africa. (4) Lecture, three hours. Survey of African built environment at various moments and in different places from about 200 CE to the 21st century with emphasis on cultural, social, and historical contexts of architecture, gender, and space, and contemporary African cities. Concurrently scheduled with course C145A. S/U or letter grading.

C245B. Contemporary Arts of 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.

246. 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. 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. Genesis of Chinese civilization in light of new archaeological 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. Overview of practice, theory, 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.

249B. Chinese Art. (4) Seminar, three hours. Advanced studies in secular and religious artistic traditions of China. May be repeated for credit with consent of adviser. S/U or letter grading.


C251A. Selected Topics in Japanese Art. (4) Lecture, three hours; discussion, one hour (when scheduled). Variable topics in Japanese art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C151A. S/U or letter grading.

C251B. Japanese Art. (4) Lecture, three hours. Advanced studies in secular and religious artistic traditions of Japan. May be repeated for credit with consent of adviser. S/U or letter grading.

C252A. History of Korean Painting. (4) Lecture, three hours. Korean painting history from Three Kingdoms period to 19th century with emphasis on cultural and sociopolitical contexts. Special emphasis on diversity of topics and social status of artists during Choson dynasty (1392 to 1910). Concurrently scheduled with course C152A. S/U or letter grading.

C252B. History of Korean Ceramics. (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 period to Choson dynasty, with special emphasis on artistic icons and 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 C153A. 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. Individual studies, with emphasis on professional presentation and publication. Concurrently scheduled with course C153B. 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. 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 C155A. S/U or letter grading.

C255A. Selected Topics in South and Southeast Asian Art. (4) Lecture, four 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 C155B. S/U or letter grading.

C255B. Indian Art. (4) Lecture, two hours. Advanced studies in secular and religious aspects of India. May be repeated for credit with consent of adviser. S/U or letter grading.

C259A. 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 C159A. S/U or letter grading.

C260A. Art and Empire. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of classical painting of imperial China through theory and practice. Concurrently scheduled with course C160A. S/U or letter grading.


C260C. 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 C160C. S/U or letter grading.

C270A. 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 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 artworks, exhibitions, and associated published and distributed materials, and of museum and gallery institutions, practices, and policies. 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 twice for credit. Concurrently scheduled with course C171. S/U or letter grading.

C272A. Preservation of Art. (4) Lecture, three hours. Designed for anthropology, archaeology, and art history graduate students. 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 cultural heritage materials both in museum and outdoor environments. 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 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.


C272C. 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 in series of discussions based on objects 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. Nature of art connoisseurship described in many examples from Renaissance and earlier panel paintings, as well as antiques and traditional African arts. Background of art restoration and art conservation discussed in relationship to authenticity and technical studies. Scientific tools that form basis of another kind of connoisseurship, techniques 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 C172B. S/U or letter grading.

273. Studies in Materials and Production of Artworks. (4) Seminar, three hours. Designed to expose students to material properties and technical production issues related to making of artworks. Introduction to processes of construction, fabrication, maintenance, preservation, and more. Hands-on demonstrations and workshops to deepen understanding of significance of choices that artists make in choice of materials. Processes of making that can impact final physical forms as well as aesthetic meanings that can attach to it. Combination of theoretical, ethical, and practical questions that confront conservators as well as those specializing in technical art history. 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. Directed assignment to 12 hours of teaching under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit.

495. Teaching Art History. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Directed assignment to 12 hours of teaching under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit.

496. Teaching with Technology. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Directed assignment to 12 hours of teaching under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. S/U grading.


**Arts and Architecture**

**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.

**Arts and Architecture**

**Lower-Division Courses**

10. Arts Encounters: Exploring Arts Literacy in 21st Century. (5) Lecture, four hours; discussion, one hour; laboratory, three hours; outside study, seven hours. Through series of direct encounters with art and artists across global range of practices, course equips students with kind 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.

19. Fiat Lux Freshman Seminars. (4) 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 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other course requirements. Directed and led by faculty mentor. 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**

100. Selected Topics in Arts. (4) Lecture, three to six hours; discussion and/or laboratory, two to three hours (when scheduled); outside study, six to nine hours. Selected topics in arts explored through variety of approaches that may include projects, readings, studio work, performance, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for maximum of 8 units. 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.

**ARTS AND ARCHITECTURE SCHOOLWIDE PROGRAMS**

**School of the Arts and Architecture**

2200 Broad Art Center
Box 951620
Los Angeles, CA 90095-1620

**Office of Student Services**

310-206-3564

**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 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
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 Lujan Camacho, PhD
Mitchell J. Chang, PhD
King-Kok Cheung, 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)
Vinut Mukhija, PhD
Kye Young R. Park, PhD
Shu-mei Shih, PhD (Edward W. Said Professor of Comparative Literature)
Renée E. Tajima-Peña, BA (UCLA Alumni and Friends of Japanese Ancestry Professor of Japanese American Studies)
Karen N. Unemoto, PhD
David K. Yoo, PhD
Min Zhou, PhD

Professors Emeriti
Marjorie Kagawa-Singer, RN, PhD
Snehindu B. Kar, DrPH, MSc
Paul M. Ong, PhD

Associate Professors
Victor Bascara, PhD
Lucy M. Burns, PhD
Michelle L. Caswell, PhD
Jennifer J. Chun, PhD
Natalie R. Masuoka, PhD
Thu-huong Nguyen-vo, PhD
Robert Chao Romero, JD, PhD

Assistant Professors
Juliani T. Anesi, PhD
Jolie Chea, PhD
Evyn Lê Espiritu Gandhi, PhD
Loubna Qutami, PhD
Cindy Sangalang, PhD
Lee Ann S. Wang, PhD

Adjunct Associate Professors
Tritia Toyota, PhD
Benjamin K.P. Woo, MD

Overview
The Department of Asian American Studies, founded in 2004, promotes the study of Asian and Pacific Islander Americans across a number of fields and disciplines.

Following the tradition of civil rights struggles of the 1960s and 1970s, the department values the social relevance of academy-based knowledge production, as well as the connection between academia, the Asian and Pacific Islander community, and other disadvantaged social groups. Faculty members in the department are likewise committed to offering a broad, inclusive, and flexible curriculum designed to meet maximum student needs, with emphasis on close mentorship, collaborative teaching, and engaged scholarship.

The department offers a Bachelor of Arts (BA) degree, undergraduate minors in Asian American Studies and Filipino Studies, a Master of Arts (MA) degree, and two concurrent degree programs: Asian American Studies MA/Master of Public Health with the Fielding School of 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 excellent 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.

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:

- Skills in and critical appreciation for theoretical, multidisciplinary, and practical/applied dimensions of scholarly activities as applied to historical and contemporary studies of subject populations
- Skills in and critical appreciation for textual, library, archival, visual, creative, and fieldwork-based qualitative and quantitative research, including ways of identifying and accessing diverse resources
- Skills in and critical appreciation for comparative, relational, and intersectional understanding of group formation and dynamics, group differences and commonality, and individual identity within groups
- Skills in and critical appreciation for individual and collective agency, civic and political engagement, and engaged scholarship’s role in social change
- Skills in and critical appreciation for historical contextualization including approaches to the rise of new groups, identities, and social movements in global, national, local, and other frameworks
- Skills in and appreciation for collective formations against forms of injustice, such as subordination and inequality
Admission
An overall grade-point average of 2.0 or better is required for admission to the major.

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.

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.

The Major

Policies
No more than 12 graded units of Asian American Studies 195, 197, 198, and 199 may be applied toward the major. Courses 192 and 196 may not be applied toward 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), each must be at least 4 units, and students must have an overall grade-point average of 2.0 or better.

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.

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.

Requirements
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.

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.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed two lower-division Asian American Studies courses, and file a petition with the department undergraduate academic adviser, 3339 Rolfe Hall.

The Minor
Required Lower-Division Courses (10 units):
Two courses from Asian American Studies 10 or 10W, 20 or 20W, 30 or 30W, 40 or 40W, 50 or 50W.

Required Upper-Division Courses (20 units):

Policies
No more than 12 graded units of Asian American Studies 195, 197, 198, and 199 may be applied toward the major. Courses 192 and 196 may not be applied toward 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), each must be at least 4 units, and students must have an overall grade-point average of 2.0 or better.

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 1165, History 176A, 176B, 176C; three additional upper-division courses from the lists above or from Filipino 192, 195, Geography 445.

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.

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, Pilipino studies draws from American studies, anthropology, Asian studies, Asian 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 1165, History 176A, 176B, 176C; three additional upper-division courses from the lists above or from Filipino 192, 195, Geography 445.

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.
Asian American Studies MA

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 30W. Multidisciplinary introduction to Asian American history and culture production, with examination of some combination of novels, short stories, poetry, drama, performance, film, visual art, music, and/or new media. P/NP or letter grading.

30W. Asian American Literature and Culture. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 30W. Multidisciplinary introduction to Asian American literature and cultural production, with examination of some combination of novels, short stories, poetry, drama, performance, film, visual art, music, and/or new media. Satisfies Writing II requirement. Letter grading.


40W. Asian American Movement. (5) Lecture, three hours; discussion, two hours. Requires English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 40. Using Asian American movement of late 1960s and 1970s as lens, introduction to social history methods, including role of oral history, documentary films, and archival history, and analysis of primary and secondary sources. Asian American movement situated within larger frame of social change of era and interpretation of nation and society through lives of ordinary men and women. Exploration of campus- and community-based activism, service learning, and civic engagement. 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 experiences. Topics include Asian American women's roles in family life, work, community organization, social change, and cultural creativity. Examination of 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. Requires English Composition 3 or 3H or English as a Second Language 36. 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 experiences. Topics include Asian American women's roles in family life, work, community organization, social change, and cultural creativity. Examination of 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.

104A. Special Internships in Asian Pacific Communities. (4) Fieldwork, eight hours minimum. Requires: course 101 through M191F. Development of community profiles on Asian Pacific American communities, and skills field studies techniques of data collection. P/NP or letter grading.

104B. 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, and skills field studies techniques of data collection. P/NP or letter 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 research on Asian Americans, providing experience in using some research methods and exercises in evaluating nature and quality of scientific research on Asian American issues. P/NP or letter grading.

201. 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, and skills field studies techniques of data collection. P/NP or letter grading.

209. 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 student essays, 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.

C142C. Ethnic Identity and Ethnic Relations in Hawai‘i. (4) [Same as Anthropology M168G.] 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. Discussion of historical and contemporary aspects of ethnic identity and ethnic relations in Hawai‘i. Given in Hawai‘i. P/N or letter grading.

M160. Culture, Media, and Los Angeles. (8) [Same as African American Studies M102 and Honors College M102.] Lecture, four hours; screenings, two hours. Designed for juniors/seniors. Role of media in society and its influence on cultural environment, specifically in Los Angeles; issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/N or letter grading.


M164. Women, Violence, Globalization: India, Philippines, Singapore, Vietnam. (4) [Same as Gender Studies M166A.] Lecture, four hours. Study of various forms of violence against women not only in and of themselves but in light of larger systems of oppression, with focus on Filipino, Vietnamese, Singaporean, and South Korean women. P/N or letter grading.

M165. Race, Gender, Class. (8) [Same as Comparative Literature M175.] 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. Examination of these issues from comparative perspectives. P/N or letter grading.

M166A. Immigrant Rights, Labor, and Higher Education. (4) [Same as 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 immigrant rights movement and examination of development of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on issue of immigrant students in higher education, challenges facing undocumented immigrant students, and legislative and policy issues that have emerged. Students conduct oral histories, family histories, research on immigrant rights, write poetry and spoken word about immigrant experience, and work to collectively develop student publication on immigrant students in higher education. P/N or letter grading.

M166B. Research on Immigration Rights, Labor, and Higher Education. (4) [Same as Chicana/o and Central American Studies M156B and Labor Studies M166B.] Lecture, three hours; discussion, one hour. Overview of immigrant rights movement and examination of development of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on issue of immigrant students in higher education, challenges facing undocumented immigrant students, and legislative and policy issues that have emerged. Students conduct oral histories, family histories, research on immigrant rights, write poetry and spoken word about immigrant experience, and work to collectively develop student publication on immigrant students in higher education. P/N or letter grading.


M168. Student-Initiated Retention and Outreach Issues in Higher Education. (4) [Same as African American Studies M118, American Indian Studies M118, and Chicana/o and Central American Studies M118.] Lecture, four hours. Exploration of issues in student recruitment, engagement, and retention, with focus on experiences and perspectives of campus outreach and retention programs. P/N or letter grading.

M169. Constructing Race. (4) [Same as African American Studies M156P and Anthropology M144P.] Lecture, three hours; discussion, one hour (when scheduled). Examination of race, socially constructed category, from anthropological perspective. Consideration of development and consequences of race over time and in different regions, racial passing, multiracial identity in U.S., whiteness in popular culture, and race and identity. P/N or letter grading.

170. Transnational Perspectives on Asian America. (4) Lecture, three hours. Recommended preparation: background in Asian Pacific American social and legal history. Designed for juniors/seniors. Examination of transnational spaces that have emerged in Asian America in last four decades as consequence of global economic restructuring and new immigration. Introduction to and survey of new frameworks for understanding these changes in postmodern and Asian Pacific American studies, using theoretical frameworks of Asian American political and racial history. Readings and discussion on transnational aspects of wide range of historical and contemporary context of Asia/Asian American experience. Building of linkages between roots of social constructions of race and multitudinous social processes that now constitute globalization of Asia, Pacifica. Theoretical readings assigned. P/N or letter grading.

171A. Critical Issues in U.S.-China Relations. (4) Lecture three hours. Not open to freshmen. Critical examination of U.S. involvement in China, Hong Kong, and Taiwan, including study of historical, cultural, 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 Americans and their communities. P/N 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 Americans and their communities. P/N or letter grading.

171C. Critical Issues in U.S.-Korea Relations. (4) Lecture, three hours. Not open to freshmen. Critical examination of U.S. involvement in Korea, including study of historical, cultural, political, and socioeconomic factors that shape relations between Korea and U.S. Examination of impact of relationships in Pacific Rim and Korean Americans and their communities. P/N or letter grading.


172A. Indian Identity in U.S. and Diaspora. (4) Same as History M147A. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History 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 groups; Indian women as embodiment of Indian culture; diasporic identities. P/NP or letter grading.

172B. Gender in South Asian Communities at Home and Diaspora. (4) Lecture, three hours. 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 transnational perspectives enable reimagining South Asian American experiences and to rethink relationship between Asian 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, sexuality, race, and economic liberalization in South Asia, as well as across South Asian communities in North America, U.K., and Africa. Examination of how complex relationships between Bollywood and transnational diasporas enable us to better understand South Asian American communities. P/NP or letter grading.

173. Topics in Vietnamese Cinema and/or Literature. (3 or 4) Lecture, three hours; discussion, one hour. Knowledge of Vietnamese not required. Critical and historical examination of literary and/or filmic representations connected to social practices such as empire, nation, diaspora, and globalization. Original language course materials available for interested students. P/NP or letter grading.

174A. Special Courses in Comparative Race, Ethnicity, Gender, and Sexuality. (4) Lecture, three hours; discussion, one hour (when scheduled). 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.

174B. Special Courses in Transnationalism and Diasporas. (4) Lecture, three hours; discussion, one hour (when scheduled). 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.

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. Making Fiction Work: Philippines and Its Elsewheres. (4) Seminar, three hours. Requisite: one course from 10, 10W, 20, 20W, 30, 30W, 40, 40W, 50, 50W, 123, 133, 171D or History M144C, Filipino American Literature, or consent of instructor. Filipinos and Filipino global diaspora as launching off point for interdisciplinary study of cultural diversity, national identity formation, global migration, labor, rise of Asia, and borders. Critical study of difference, not as identitarian, celebratory approach of sameness; rather focus on shared struggles between minoritized groups in U.S. and shared histories of U.S. territorial possessions. May not be repeated for credit. P/NP or letter grading.


178. Critical Refugee Studies. (4) Lecture, three hours: course 10, 10W, 20, 20W, 30, 30W, 40, 40W, or 50W. Examination of how refugees are represented in government and popular media, and how refugees represent themselves through 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.

185. Capstone Community-Based Research. (4) Seminar, three hours; fieldwork, three hours. Limited to senior departmental majors and minors. Designed to serve as capstone course in service learning requirement for major and minor and may be used to fulfill capstone requirement for major and minor. Students work as research team, are matched with one or more community clients, and must complete minimum of 40 fieldwork hours. Duties and responsibilities collaboratively determined by instructor, students, and sponsoring organizations. Readings determined in consultation with instructor. Letter grading.

186. Capstone Experience. (4) Seminar, three hours. Limited to senior departmental majors and minors. Synthesis and application of knowledge students have acquired through prior departmental coursework. Lecture, three hours research seminar with experientive-expression project. Themes may vary by instructor and term. Students pursue independent work related to course theme with guidance from instructor, then share critique with 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 selected Asian American themes, including issues in cultural formation, religion, education, social class, economic development, movement, politics, and public policy. 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.

188. Special Courses in Asian American Studies. (4) Seminar, four hours. Program-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, as arranged. Honors content noted on transcript. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, as arranged. Honors content noted on transcript. P/NP or letter grading.

188B. Individual Studies for USIE Facilitators. (1) Tutorial, as arranged. 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. 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 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. 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 movements, politics, and public policy. May be repeated for credit with topic change. P/NP or letter grading.

192. Undergraduate Practicum in Asian American Studies. (2 or 4) Seminar, two or four hours. Limited to juniors/seniors. Tutorial course for students interested in practical experience in Asian American Studies. Limited to 20 students. May be repeated for credit with topic or instructor change. P/NP or letter grading.
with guidance of faculty members in enrolled course settings. May not count toward departmental major or minor requirements. May be repeated for credit. P/NP grading.

195. Community or Corporate Internships in Asian American Studies. (4) Tutorial, two hours; fieldwork, eight hours per week; S/U or 3.0 grading. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports to professor. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

M195CE. Comparative Approaches to Community and Corporate Internships. (Same as African American Studies M195CE, American Indian 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. 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 juniors/seniors. Entry-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 grading.

197. Independent Study: 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, four to four hours. Requisites: two courses from 104A through 108, 110, 142, 20, and 30 (or 30W) and one course from 104A through 108, 104A, 104B, 104C, or 110A. Introduction to research 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) Seminar, 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. (4 to 24) 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. Culuminating research paper or project report required. May be repeated for maximum of 8 units. 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 American and Pacific Islander American communities using selected theoretical approaches. Introduction to research in archival and/or oral history methods. S/U or letter grading.


200C. Critical Issues in Asian and Pacific Islander American Literature and Culture. (4) Seminar, three hours. Designed for graduate students. Examination of critical questions emerging from Asian and Pacific Islander American literacy and cultural criticism and/or practice. Introduction to research in literary and cultural criticism and/or practice. S/U or letter grading.


203. Asian American Research Methods. (4) Seminar, three hours. Introduction to empirical research methods, stressing uses and relevance 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.


215A-215B. Asian American Jurisprudence. (215A: 3 or 4; 215B: 1 or 2) Four hours. Course 215A is requisite to 215B. Designed for graduate students. Through judicial opinions, commentary, and historical readings, examination of how Asian 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. (4) Seminar, three hours. Preparation: prerequisite in Health Sciences M230.) Seminar, three hours. Integration of cross-cultural findings in healthcare with current American (U.S.) healthcare system paradigms to facilitate designing public health programs and train culturally competent practitioners. Letter grading.

C242A. Ethnomedicines: 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, reclaim history, and examine social issues related to diverse peoples, cultures, and communities. Viewing of films and interactive media for critique and discussion of 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. Ethnomedecines 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 technology to advance 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 requirement. Concurrently scheduled with course C142B. S/U or letter grading.


M280. Topics in Asian American Literature. (4) (Same as English M280.) Seminar, three hours. Graduate seminar that examines and critically evaluates writings of Asian Americans. May be repeated for credit. S/U or letter grading.

M281. Theorizing Third World. (4) (Same as Comparative Literature M281.) Seminar, three hours. Inves- tigation of politics of power, gender, and race in complex relationships between so-called First World and Third World, using both theoretical and textual ap- proaches. S/U or letter grading.


297B. Asian Migration to U.S. (4) Seminar, three hours. Emphasis on Asia as main regional source for interna- tional migrants. Topics include patterns and theories of international migration and their relevance to Asian American history and current events. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, three hours. Preparation: apprentice personnel certification 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 total units identified 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 research 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. (4) Seminar, three hours. Preparation: apprentice personnel appointment as teaching assistant in Asian American studies. Designed for graduate students. 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. Preparation of research data and writing of MA thesis. May be repeated for credit. 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.

Asian Languages and Cultures
College of Letters and Science
290 Royce Hall
Box 951540
Los Angeles, CA 90095-1540
Asian Languages and Cultures
310-206-8235
Department e-mail
Seiji M. Lippit, PhD, Chair

Faculty Roster
Professors
Michael S. Berry, PhD
William M. Bodiford, PhD
Robert E. Buswell, Jr., PhD (Irving and Jean Stone Professor)
George E. Dutton, PhD
Michael D. Emmerich, PhD
Shoichi Iwasaki, PhD
Stephanie W. Jamison, PhD
Seiji M. Lippit, PhD
David C. Schaberg, PhD
Shu-mei Shih, PhD
Sung-Ock S. Sohn, PhD
Hongyin Tao, PhD

Professors Emeriti
Ben Befu, PhD
Hung-hsiang Chou, PhD
John B. Duncan, PhD
Robert E. Epp, PhD
Theodore D. Huters, PhD
Kan Lao, BA
Peter H. Lee, PhD
Hartmut E. F. Scharfe, PhD
Gregory R. Schopen, PhD
Jonathan A. Silk, PhD
Richard E. Strassberg, PhD
Shirleen S. Wong, PhD
Pauline R. Yu, PhD

Associate Professors
Torquil Duthie, PhD (Haruhisa Handa Professor of Shinto Studies)
Christopher P. Hanscom, PhD
Namhee Lee, PhD
Min Li, PhD
Thu-huong Nguyen-vo, PhD
Sung-Deuk Oak, ThD
Satoko Shimazaki, PhD

Assistant Professors
Huijun Mai, PhD
Oona Paredes, PhD
Hyun Suk Park, PhD
Sixiang Wang, PhD
Yinghui Wu, PhD
Junko Yamaizaki, PhD

Senior Lecturer SOE
Gyanam Mahajan, PhD

Lecturer SOE
Kuo-yi Pao, MA, MS, Ementus

Lecturers
Chuc V. Bui, MA
Liancheng Chief, PhD
Jane B. Choi, PhD
Nenita P. Domingo, PhD
Jenjit Gassigiamrong, PhD
Seonkyung Jeon, PhD
Hee Ju, PhD
Jennifer J. Jung-Kim, PhD
YuMiko Kawanishi, PhD
Shigezito Menjo, PhD
Jae-eun I. Mitsunaga, PhD
Thu-Ba Nguyen-Hoai, PhD
Yoko Nogami, MA
Yan Shen, PhD
Michelle M. Fu Smith, PhD
Xiaoxin Sun, BA
Asako H. Takakura, EDD
Juliana Wijaya, PhD
Yu-wen Yao, MA
Jae-eun Yoon, MA

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 or 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

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

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 either one Asian language and two upper-division electives within the department (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.

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 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.

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.

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.

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
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 advisor. 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

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

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, Southeast Asian 70) 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; and Linguistics 20.

Policies
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.

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 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.

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 CM120, 124, South Asian 170, and (4) two upper-division electives within the department or from the Linguistics Department.
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.

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
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.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 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.

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 Religions BA
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

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.

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 Buddhist 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.

The Major
Required: Three upper-division language courses in one Asian language offered by the department; six upper-division Asian religions 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.

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.

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
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.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 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.

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
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

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.

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 civilization and one Chinese civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

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, 107A, 1012, 1030A 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 M153, (3) three elective courses on China selected from C138, 139, 154, 155, C156, CM160, 165, 174, C175, 176, 180, 184, 185, 186, 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 China.

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.

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
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.

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.

Japanese BA
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
- Demonstrated specific skills and expertise, including research, analysis, and writing, of a specialized topic in the study of Japanese language and culture
- Ability to identify primary sources in Japanese and analyze them within their historical and cultural context
- Working knowledge of scholarly discourse on a specialized topic in Japanese culture
- Conception and execution of research projects that identify and engage with a specialized topic in Japanese culture

Preparation for the Major
Required: Japanese 6 or 10 or equivalent, and one course from 50, 70, 75, 80, Asian 30.

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.

The Major
Required: Eleven courses as follows: (1) five language courses in modern or premodern language or texts selected from Japanese 100A and 100B or 100C or 100S, 100R, 101A and 101B or 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 C112, CM122, CM123, CM127, 155, CM160, 161, 165, C171, C182, 191B, 191C, 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
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
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.

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.

Korean BA
Learning Outcomes
The Korean major has the following learning outcomes:

- Demonstrated advanced knowledge of written and spoken Korean
- Broad knowledge of Korean history, literature, thoughts, and religions from the ancient to the modern era
- Engagement in critical comparisons of historical and other narratives
- Relation of historical and cultural developments in Korea with other countries in East Asia and beyond
- Discussion of the scholarly literature about a topic in an area of expertise
- Analysis of texts, cultural objects, and historical developments based on disciplinary knowledge
- Conduct research projects using primary and second source materials critically and persuasively
Preparation for the Major

**Required:** Korean 6 or 6A or 10 or equivalent, and one course from 40, 50, M60, 70, 80. Asian 30.

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.

The Major

**Required:** Eleven courses as follows: (1) five language courses selected from Korean 100A, 100B, 100C, 101A and 101B and 101C or 1011, 102A, 102B, 102C, 103A, 103B, 103C, 104A, 104B, 104C, C105A, C105B, C105C, 106A, 106B, 106C, 107A, 107B, 107C, CM120, 124, 125, 176, 177, 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.

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.

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 application, have completed 45 units at UCLA and all lower-division requirements for the minor, and consult with the departmental undergraduate adviser.

**Requirements**

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.

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.

Undergraduate Minors

**Asian Humanities Minor**

The Asian Humanities minor is designed to recognize a serious commitment to the study of Asian cultures. Lower-division survey courses in civilizations and religious traditions provide students with a solid foundation in the diverse cultural heritages of Asia. Students may fulfill upper-division requirements from a wide variety of courses in all aspects and historical periods of Asian humanities.

**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):**

Two courses from Asian 30, M60, M60W, M61, Chinese 50, M60, M60W, Japanese 50, 70, 75, 80, Korean 40, 50, M60, 70, 80, South Asian M60, Southeast Asian M60.

**Required Upper-Division Courses (20 units):**

Five courses in the department concerning Asian culture (e.g., film, folklore, history, linguistics, literature, mythology, religious studies).

**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**

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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**

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed 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, 70, Korean 50) or one introduction to religions course (e.g., Asian 60, 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.
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 Eastern dating to end of 4th millennium BC; the more developed systems 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. How and why did these come to be? An overview of independent developments in writing. Basic characteristics of early scripts, assessment of modern alphabetic writing systems, and presentation of conceptual basis of semiotic, linguistic 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 the 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 M60W.) 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 the development of Buddhism in India, with focus on those religious doctrines and meditative practices most essential to various Asian traditions of Buddhism. Letter grading.

121. Field Methods in Asian Languages and Cultures. (3) Offered as concurrent with course CM224. P/NP or letter grading. Readings of primary and secondary materials, and field exercises to explore various themes in development of Buddhism, with emphasis on Theravada and Zen schools. Topics include various typologies of meditation, satoriistic relationship between meditation and religion. May be repeated with topic change. Letter grading.


135. Asian Foodways across Borders. (4) Lecture, three 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. Offers insight into 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 on Buddhism or traditional Asian religions. Knowledge of M20W or non-Asian languages is required. May be repeated with topic change. Letter grading.

152. Tibetan Buddhism. (4) Lecture, three hours. Survey of thought and practices of Buddhism in Tibet from its beginnings to present day. Letter grading.

155. Buddhism, Film, and Media. (4) Lecture, three hours; discussion, one hour. Recommended preparation: 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 Chinese, diaspora, ethnicity, identity, and multilingualism. Reading of key Sinophone literary texts from Letters to a Chinese Princess to postmodernist works. 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 one or more religious traditions 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. Study and practical experience of meditation in Buddhism, with emphasis on Theravada and Zen schools. Topics include various typologies of meditation, satoriistic relationship between meditation and religion. May be repeated with topic change. Letter grading.

163. Buddhism across Boundaries. (4) Lecture, two hours; discussions, one hour. Readings preparatory: prior course on Buddhism or traditional Asian religions. Knowledge of Asian languages not required. Investigation of various themes in development of Buddhist traditions across historical periods as well as national and cultural boundaries, including issues of practice, politics, and translation. Letter grading.

164. Buddhism and Early Religious History of Pakistan, Afghanistan, and Central Asia: Introduction. (4) Lecture, three hours. Course open to non-Asian language students; institutional and instructor attitudes toward HLLs; impact of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences between English and foreign language learners (FLs) regarding teaching methods and materials; diagnostic testing and needs analysis; use of oral/aural proficiency for springboard for literacy instruction; motivation of instruction of mixed HL and FL classes. Action research component included. Concurrently scheduled with course CM224. P/NP or letter grading.

C170. Approaches to Study of Religion. (4) Seminar, three hours. Investigation of many ways in which religion and religions may be studied, including anthropological, sociological, psychological, phenomenological, political, reductionist, and other approaches. Readings of primary and secondary sources of modern scholarship. Concurrently scheduled with course CM270. P/NP or letter grading.

189. Advanced Honors Seminars. (5) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in
189C. Honor Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as a supplement 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 credit for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Asian Languages and Cultures. (1) Seminar, one hour. Corequisite: course 198A or 198B or 198C or 199. Designed to bring together advanced undergraduate students under-taking individual 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/NoP or letter grading.

191A. Variable Topics Research Seminars: Life Writing in East Asia. (4) Seminar, three hours. Research seminar on selected topics. 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, discussion, and development of culminating project. May be repeated for credit. Letter grading.

191B. Variable Topics Research Seminars: Buddhist Studies. (4) Seminar, three hours. Limited to juniors/seniors. Research seminar on selected topics in Buddhist studies: development, 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 late scholarship in field of Asian studies. Attendance at selected scholarly presentations, as well as discussion sessions with faculty advisor to discuss presentations and published works of speakers. May be repeated for credit. P/NoP or letter 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 experiences. Final paper that combines academic research and knowledge gained from community experience required. Individual contract with supervising faculty member required. P/NoP 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. Development of honors thesis under direct supervision of faculty member. Letter grading. 198B. Enforced requisite: course 198A. Continuation of work initiated in course 198A. Presentation of research and relevant progress to supervising faculty member. In Progress grading (credit to be given only on completion of 198A). 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. (4–4) Tutorial, to be arranged. Recommended preparation: advanced reading knowledge of one Asian language. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty member. Culminating paper or project required. May be repeated once with consent of instructor. Individual contract required. Letter grading.

Graduate Courses

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 issues in analyzing language examples, theoretical implications of linguistic data, and applications of functional linguistics in order to explain a phenomenon. S/U or letter grading.

201. Proseminar: Approaches 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.


203. Variable Topics in East Asian Linguistics. (4) Seminar, three hours. Advanced course that explores topics in East Asian linguistics through 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: course 198A. Critical reading and 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. (4) Seminar, three hours. Designed for graduate students. Introduction to theoretical topics relevant to comparative study of East Asian cultures in modern period. Readings include Western theoretical works balanced with texts taken congruent approaches to East Asian topics. S/U or letter grading.

210. Proseminar: Cultural and Comparative Studies. (4) Seminar, three hours. Enforced requisite: course 245B. Designed for graduate students. Readership and discussion of major historiographical trends, with focus on how they have been applied to Asia. Topics include Marxist histories, Annals school and cultural history, microhistories, gender, space, historical memory, postcolonial histories, subaltern, and modernity and Asia. 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, Annals school and cultural history, microhistories, gender, space, historical memory, postcolonial histories, subaltern, and modernity and Asia. S/U or letter grading.

220A-220B. Seminars: Topics in Cultural Studies. (4–4) Seminar, three hours. Complements course 220A. Further investigation of methodology and materials of cultural studies in connection with specific topics selected by instructor. 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 wordlists, discourse 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.

C270. Approaches to Study of Religion. (4) Seminar, three hours. Investigation of many ways in which religion and religions may be studied, including anthropological, sociological, psychological, phenomenological, and political approaches. Readings of primary and secondary sources of modern scholarship. Concurrently scheduled with course C170. Letter grading.
291A-291B. 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 (291A) and S/U or letter (291B) grading.

M292. Japan in Age of Empire. (4) Same as Anthropology M247P and History M286. Seminar, three hours. Designed for graduate students. Since late 19th century, Japan’s efforts to empire into East and Southeast Asia. Coverage of that period and array of anthropological studies conducted in Japan’s colonies and occupied areas in this hardly explored area of study of colonialism. S/U grading.

293. Graduate Student Colloquium. (4) Research group meeting, three hours. Designed to provide graduate students in Asian studies with opportunity to present their research to other students and faculty members.

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 grading.

299. Independent Study. (2 to 6) Tutorial, to be arranged. Designed for graduate students. Guided research and reading of research papers as part of student's dissertation or thesis. Preparation: apprentice period of active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

456. Teaching Asian Languages at College Level. (4) Seminar and tutorial, 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, delivery of materials, and test participation in peer observations and workshops required. Students receive unit credit toward full-time equivalence but not toward any degree requirements. S/U grading.


597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (4 to 8) Tutorial, to be arranged. S/U grading.


Chinese Lower-Division Courses

1. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. 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 comprehension, reading, and writing. P/NP or letter grading.

1A. Elementary Modern Chinese for Advanced Beginners. (5) Lecture, two hours; discussion, three hours. 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 comprehension, reading, and writing. P/NP or letter grading.

2. Elementary Modern Chinese. (5) Lecture, three hours; discussion, two hours. Enforced requisite course 1A 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, two hours; discussion, three hours. Enforced requisite course 1A 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 1A. P/NP or letter grading.

3. Elementary Modern Chinese. (5) Lecture, three hours; discussion, two hours. Enforced requisite course 2A 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 2. P/NP or letter grading.

3A. Elementary Modern Chinese for Advanced Beginners. (5) Lecture, two hours; discussion, three hours. Enforced requisite course 2A 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 2A. P/NP or letter grading.

3B. Accelerated Modern Chinese for Advanced Beginners. (5) Lecture, three hours; discussion, one hour. Required: Chinese placement test or department consent. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. For students who wish to complete one-year foreign language requirement at accelerated pace. P/NP or letter grading.

4. Intermediate Modern Chinese. (5) Lecture, three hours; discussion, two hours. 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, Cantonese. 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, two hours. 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. Designed for students who already have certain listening and speaking skills in Mandarin or other Chinese dialects at intermediate levels. Training in all basic language skills (speaking, listening, reading, and writing). P/NP or letter grading.

4B. Intermediate Modern Chinese for Advanced Students. (5) Lecture, three hours; discussion, two hours. 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. Continuation of course 4A. P/NP or letter grading.

5C. Mandarin for Cantonese Speakers. (5) Lecture, four hours. Enforced prerequisite Chinese placement test. Designed for students who are Cantonese speakers and familiar with Chinese characters and who need to improve their pronunciation of standard Mandarin dialect. P/NP or letter grading.

5D. Intermediate Modern Chinese. (5) Lecture, three hours; discussion, two hours. Requisite: course 5 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. Continuation of course 5. P/NP or letter grading.

6A. Intermediate Modern Chinese for Advanced Students. (5) Lecture, three hours; discussion, two hours. Requisite: course 5 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. Continuation of course 5A. P/NP or letter grading.

6C. Mandarin for Cantonese Speakers. (5) Lecture, four hours. Requisite: course 5C or Chinese placement test. Designed for students who are Cantonese speakers and familiar with Chinese characters and who need to improve their pronunciation of standard Mandarin dialect. Completion of course 6 is equivalent to completion of course 5A. P/NP or letter grading.

8. Elementary Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Intensive course equivalent to courses 1, 2, and 3. Introduction to fundamentals of standard Chinese, including pronunciation, grammar, and Chinese characters, with emphasis on all four basic language skills—speaking, listening comprehension, reading, and writing. Offered in summer only. P/NP or letter grading.

8A. Elementary Modern Chinese for Advanced Beginners: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Intensive course equivalent to courses 1A, 2A, and 3A. Designed for students who already have some listening and speaking skills in Mandarin Chinese but do not have any reading and writing skills
and for students who speak Chinese dialect other than Mandarin at home and have some knowledge of Chinese characters (i.e., can read some basic Chinese). Coverage of listening, speaking, reading, and writing skills. Offered in summer only. P/NP or letter grading.

10. Intermediate Modern Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Recommended preparation: course 3, 3A, or 8, or Chinese placement test or courses equivalent to elementary-level Chinese. Not open to students who have had courses 4, 5, and 6. Designed to strengthen communicative skills of listening, speaking, reading, and writing. Grammar reviews, knowledge of idiomatic expressions, and both modern and classical Chinese cultures. Lecture, three hours; discussion, two hours. Enforced requisite: course 6 or 101 with grade of C or better or Chinese placement test. Not open to students who have had courses 4, 5, and 6. 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 illustrating many paths of discovery at UCLA. P/NP grading.


40. Popular Culture in Modern Chinese Societies. (5) Lecture, two hours; discussion, two hours. Lecture to develop basic understanding of modern Chinese society in culture, Taiwan, Hong Kong, and overseas Chinese communities. From fiction to film, music to MTV, and cartoons to karaoke, probing of popular as it has manifested itself in Chinese societies and tracing of its development over last century. P/NP or letter grading.

50. Chinese Civilization. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for courses 100A-100B-100C. Introduction to major aspects of Chinese culture. Topics include early Chinese civilization, historical development of Chinese society, issues of ethnicity, Chinese language and philosophy, and scientific and technological innovation. P/NP or letter grading.

50W. Chinese Civilization. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 50. Knowledge of Chinese not required. Introduction to major aspects of Chinese culture. Topics include early Chinese civilization, historical development of Chinese society, issues of ethnicity, Chinese language and philosophy, and scientific and technological innovation. P/NP or letter grading.

97. Variable Topics in Chinese Culture. (4) Lecture, three hours. Knowledge of Chinese language or culture not required. Variable topics covering many different aspects of Chinese culture. 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.

98C. 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.

101A-101B-101C. Advanced Modern Chinese. (4–4–4) Lecture, three hours; discussion, two hours. Enforced requisite: courses 100A or 100B or 100C. Prior knowledge of Chinese not required. Introduction to pre-20th-century Chinese literary traditions, including selection of poetry, prose, fiction, and drama. Satisfies Writing II requirement. Letter grading.

101A. Advanced Modern Chinese. (4) Lecture, 10 hours; discussion, 10 hours. Enforced requisite: course 6 or 10 with grade of C or better or Chinese placement test. Not open to students who have had courses 4, 5, and 6. 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 etiquettes in business conduct, Chinese economic and business climate, language of business and trade regulations, resources and environment, and business case studies. Letter grading.

102A. Advanced Chinese for International Business. (4) Lecture, three hours; discussion, one hour. Enforced requisite: courses 6 or 10 with grade of 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 etiquettes in business conduct, Chinese economic and business climate, language of business and trade regulations, 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 of 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 etiquettes in business conduct, Chinese economic and business climate, language of business and trade regulations, resources and environment, and business case studies. Letter grading.

104. Modern Chinese Literature. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 70. Prior knowledge of Chinese culture, literature, or language not required. Introduction to pre-20th-century Chinese literary traditions, including selection of poetry, prose, fiction, and drama. Satisfies Writing II requirement. Letter grading.

104W. Modern Chinese Literature. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 70. Prior knowledge of Chinese culture, literature, or language not required. Introduction to pre-20th-century Chinese literary traditions, including selection of poetry, prose, fiction, and drama. Satisfies Writing II requirement. Letter grading.

107. Classics of Chinese Literature. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 70. Prior knowledge of Chinese culture, literature, or language not required. Introduction to pre-20th-century Chinese literary traditions, including selection of poetry, prose, fiction, and drama. Satisfies Writing II requirement. Letter grading.


1010A-1010B-1010C. Advanced Modern Chinese. (4–4–4) Lecture, three hours; discussion, two hours. Enforced requisite: course 100A or 100B or 100C. Prior knowledge of Chinese not required. Introduction to pre-20th-century Chinese literary traditions, including selection of poetry, prose, fiction, and drama. Satisfies Writing II requirement. Letter grading.

1010W. Advanced Modern Chinese. (4–4–4) Lecture, three hours; discussion, two hours. Enforced requisite: course 100A or 100B or 100C. Prior knowledge of Chinese not required. Introduction to pre-20th-century Chinese literary traditions, including selection of poetry, prose, fiction, and drama. Satisfies Writing II requirement. Letter grading.


103. Topics in Chinese Language and Culture. (4) Lecture, two hours; discussion, two hours. Requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students who have had courses 4, 5, and 6. Knowledge of Chinese not required. General survey of religious life in China, with emphasis on everyday religious practice over doctrine, and themes common to Buddhist, Daoism, and Confucianism. Satisfies Writing II requirement. Letter grading.

103W. Topics in Chinese Language and Culture. (4) Lecture, two hours; discussion, two hours. Requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students who have had courses 4, 5, and 6. Knowledge of Chinese not required. General survey of religious life in China, with emphasis on everyday religious practice over doctrine, and themes common to Buddhist, Daoism, and Confucianism. Satisfies Writing II requirement. Letter grading.
basic concepts in sociocultural linguistics, discourse analysis, and technology to analyze Chinese language and cultural conventions expressed through verbal and non-verbal linguistic devices. Major coverage on language use as reflected in various types of media: film, television, internet, advertisement, etc. May be repeated for credit. P/NP or letter grading.

105A-105B. Advanced Chinese Rhetoric and Critical Thinking. (4-4) Lecture, three hours; Requisite: Chinese placement test. Designed for students who have completed secondary education or equivalent in Chinese. Focus on developing sophisticated Chinese rhetoric strategies in speaking and writing and critical thinking skills through use of Chinese language materials and multimedia materials used as basis for in-depth analysis and understanding of contemporary topics in Chinese language, culture, and society. Each course may be taken independently for credit. Letter grading.

C107A-C107B. Academic/Professional Chinese. (4-4) Lecture, three hours; discussion, one hour. Enforced requisite: 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, including medicine, and applied linguistics. Concurrently scheduled with courses C207A-C207B. P/NP or letter grading.

108FL. Special Studies: Readings in Chinese. (2) Seminar, two hours. Requisite: course 100C or 100I or Chinese placement test. Enforced requisite: course 100C or 100I. Enforced preparation: course 100 or 101 or Chinese placement test. Viewing and discussion of Chinese films along with relevant readings in Chinese. Letter grading.

131. World Sinophone Literature: Theories and Texts. (4) Lecture, two hours; discussion, one hour. Readings in original language. Exploration of Sinophone, phone as analytic category for literature written in Sinitic languages. Theories of Sinophone and literary texts from Taiwan, Hong Kong, Malaysia, China, and elsewhere. Letter grading.

135. Chinese-Language Film and Culture. (4) Lecture, two hours; discussion, one hour; film viewing, three hours. Enforced requisite: course 100C or 101 or Chinese placement test. Viewing and discussion of Chinese films along with relevant readings in Chinese. Letter grading.


139. Gardens in China. (4) Lecture, three hours; discussion, one hour. Recommended preparation: course 50. Interdisciplinary survey of history and literary gardens in China, with focus on English translations of texts by native writers and recent Western scholars. Letter grading.


C144. 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 re-creation of original text against published English translations and actual translation work. May include interpretation segment, designed to improve interpretation skills. Concurrently scheduled with course C244. P/NP or letter grading.

C150A. Lyrical Traditions. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Lectures and discussion of works of traditional Chinese literature, with emphasis on development of subjectivity and modes of address. Concurrently scheduled with course C250A. P/NP or letter grading.

C150B. Chinese Literature in Translation: Traditionall Narrative and Fiction. (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 C250B. P/NP or letter grading.

157. Contemporary Chinese Popular Culture. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 101 or Chinese placement test. Concurrently scheduled with course C257. Letter grading.


165. Introduction to Chinese Buddhist Texts. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese language not required. Examination of relationship between culture (art, literature, 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.

C175. Introduction to Chinese Thought. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Survey of Chinese thought as represented in texts of Zhou through early Han periods (circa 1000 to 100 BCE), with focus on invention of Confucian tradition (including Five Classics) and on defenses of that tradition against challenges from Mohists, Taoists, and other groups of thinkers. Concurrency scheduled with course C275. Letter grading.

175SL. Introduction to Chinese Thought. (4) Seminar, three hours; fieldwork, two hours. Knowledge of Chinese not required. Community-based survey of Chinese thought as represented in texts of Zhou through early Han periods (circa 1000 to 100 BCE), with focus on invention of Confucian tradition (including Five Classics) and on defenses of that tradition against challenges from Mohists, Taoists, and other groups of thinkers. Service learning component includes meaningful work with community partners, such as local schools, selected in advance by instructor. Letter grading.

176. Neo-Confucianism. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Early Chinese study of their own past, types of Confucian tradition (including Five Classics) and on defenses of that tradition against challenges from Mohists, Taoists, and other groups of thinkers. Service learning component includes meaningful work with community partners, such as local schools, selected in advance by instructor. Letter grading.

178. Archaeology of Early Global Trade and Piracy. (4) Lecture, three hours; discussion, one hour. Exploration of role of trade and piracy at threshold of globalization (13th to 17th century), with focus on continuity and transformation in Asian trade network in response to early global trade. Investigation based on archaeological study of porcelain, tracing movement from kins across Chinese trading ports to shipwrecks and coastal sites in Southeast Asia and coastal Americas. As one of most important commodities on trans-Pacific voyage, close association of porcelain production and trade with international piracy in traditional Chinese maritime economic system presents new angle for understanding dynamics of early global trade and industries. Letter grading.

M183. Archaeological Landscapes of China. (4) (Same as Anthropology M161E) 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 China. Combining lectures, library research, and hands-on analysis of archaeological sites on satellite images, investigation of changing historical and archaeological landscape in China during last 5,000 years. Mining images at various scales from emergence of early cities to rise of metropolitan centers and formation of imperial landscapes. P/NP or letter grading.

184. Crime, Law, and Punishment in Traditional China. (4) Lecture, three hours; discussion, one hour. Preventing crime and administering justice are important parts of any society, but these are not straightforward issues. What is crime? Are 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? Consideration of laws and legal codes in China from multiple perspectives: legal codes and casebooks, literary re-imaginings of trials, depiction 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. Knowledge of Chinese not required. Based on studies of cultural, historical, anthropological, and archaeological materials, introduction to how Chinese have been engaging themselves in the 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 artifacts, becoming interested in the nature of such artifacts, and consideration of the need for recovery work of early sites, with focus on on-ups and presenting evidence of early Chinese cultures. Letter grading.

187. Chinese Etymology and Calligraphy. (4) Lecture, three hours; discussion, one hour. Recommended requisite: 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 that were used to form Chinese characters and (2) aesthetic training of calligraphic art and its appreciation, with focus on ways of recognizing and interpreting cursive style, common form of 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 course work. May be repeated 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.


191B. Variable Topics Research Seminars: 20th-Century China and Taiwan. (4) Seminar, three hours. Designed for juniors/seniors. Research seminar on selected topics in modern and contemporary Chinese literature and culture from China and Taiwan. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

197. Individual Studies in Chinese. (4) Tutorial, to be arranged. Limited to honors and graduate students who desire more advanced or specialized instruction in Chinese. 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; see undergraduate advisor. P/NP or letter grading.

Graduate Courses

200A. Research Methods in Chinese. (4) Seminar, three hours. Required course 110C. Lectures and discussion designed to develop basic skills in using traditional Chinese research materials. Topics include bibliographic tools in field and on scholarship in English on major literary genres; anthologies; rare editions; illustrated matter; classical dictionaries; sinological indices; bibliographic art and its appreciation, with focus on ways of recognizing and interpreting cursive style, common form of handwriting. Letter grading.

200C. Proseminar: Modern Chinese Literature and Cinema. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in fields of modern Chinese literary and cinematic studies, with focus on theoretical tools, historical knowledge, and critical trends. Letter grading.


M202. China Studies: Discipline, Methods, Debates. (2) (Same as History M280) Seminar, two hours. Introduction to modern research in and usage of humanities and social sciences disciplines. S/U grading.


C207A-C207B. Academic/Professional Chinese. (4–4) Lecture, three hours; discussion, one hour. Enforced requisite: 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 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.

209. Issues in Sinophone Literature. (4) Seminar, three hours. Exploration of selected topics and issues in Sinophone literature, literature written in Sinitic language by ethnic minorities 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.


211A-211B. Seminars: Classical Chinese Poetry. (4–4) Seminar, three hours. Preparation: reading knowledge of literary Chinese. Topics rotate among major traditional texts and chronological periods. Examination of philological and historical approaches. May be repeated for credit with consent of instructor. 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. Advanced topics in Chinese-language cinemas. Examination of theory and methodology, historiography, industry and institutions, style and aesthetics, major genres and artists, other arts and media, other cinematic traditions, and social 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. Discussions to be framed by Western literary and cultural theory, investigating both challenges and limitations Western theory may pose for Chinese literary and cultural studies. Specific topics vary from year to year. In Progress (220A) and letter (220B) grading.

224A-224B. Seminars: Selected Topics in Chinese Literature and Culture. (4–4) Seminar, three hours. Focus on reading and discussion of selected topics in Chinese functional linguistics (discourse 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 fictional discussion of individual research projects. May be repeated for credit. In Progress (230A) and letter (230B) grading.


C240. Introduction to Chinese Linguistics. (4) Lecture, three hours; discussion, one hour. Recommended preparation: one to two years of college-level Chinese. Introduction to Chinese sound system, writing system and its reform, regional differences, major structural features, language in society and in cultural practices. Concurrently scheduled with course C120. 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 sociology 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 discussion of 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.

243. Translation Workshop: Premodern Chinese Texts. (2) Seminar, two hours. Translation, grammatical analysis, and discussion of selections from premodem Chinese texts in English translation.

C244. 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, design and development of Chinese translation, focus on cross-lingual 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 Narrative and Drama. (4–4) Seminar, three hours. Preparation: reading knowledge of colloquial and literary Chinese. Seminar topics alternate yearly between traditional narrative and drama, with emphasis on generic, hermeneutical, and historical approaches. Topics in narrative and drama range from Zhou through Ch’ing periods. Topics in drama selected from t’ao-ch’ü and ch’üan-ch’ü. May be repeated for credit with consent of instructor. In Progress (245A) and letter (245B) grading.

C250A. Lyric Traditions. (4) Lecture, three hours; discussion, one hour. Readings of poetic and critical writings of traditional Chinese, with emphasis on development of subjectivity and modes of address. Concurrently scheduled with course C150A. Graduate students required to read primary materials in original Chinese. S/U or letter grading.

C250B. Chinese Literature in Translation: Traditional Narrative and Fiction. (4) Lecture, three hours; discussion, one hour. Preparation: knowledge of Chinese not required. Examination of formation and development of Chinese narrative traditions from Tang to mid-Qing periods (7th–18th centuries). Readings from biographical writings, fiction, drama, legal cases, etc., with emphasis on different narrative conventions and their cultural assumptions and intersections. Exploration of important issues in context of imperial China, including order and chaos, self and other, desire and transcendence, gender norms and transgression, 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.

C257. Variable Topics in Culture and Society in Taiwan. (4) Lecture, discussion, one hour. Designed for graduate students. Knowledge of Chinese not required. Examination of relationship between culture (art, literature, film) and society in Taiwan. Enforced requisite: Tagalog grammar, discussion, and development of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C156. 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.

C275. Introduction to Chinese Thought. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Survey of Chinese thought as represented in texts of Zhou through early Han periods (circa 1000 to 100 BCE), with focus 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 C175. Letter grading.

285A–285B. 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 disciplinary approaches, 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 (285A) and letter (285B) grading.

290A–290B. Seminars: Selected Topics in Chinese Archaeology. (4–4) Seminar, three hours. Requisite: course 186. Discussion and research on major problems related to different interpretations to most important archaeological finds, with emphasis on studies of Xia and Shang cultures and Xia and Shang dynasties. May be repeated for credit. In Progress (290A) and letter (290B) 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.

C297A. Seminar: Research Topics in Premodern China. (4) Seminar, three hours. Selected topics in premodern Chinese literature, history, or religion, with emphasis on textual readings and independent research. S/U or letter grading.

C297B. Seminar: Research Topics in Modern Chinese Literature and Culture. (4) Seminar, three hours. Selected topics in modern Chinese and Sino- phone 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. Intermediate 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.

8. 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.

9. 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 learning strategies. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

9HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Des- signed as adjunct to lower-division lecture course. Indi- vidual study with lecture course instructor to explore topics in greater depth through supplemental reading, writing, research, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.
Hindi-Urdu

Lower-Division Courses

1. Introductory Hindi-Urdu. (8) Lecture, two hours; discussion, three hours. Enforced requisite: course 6 with grade of C or better. Course 10A with grade of C or better is requisite to 100B; course 100B with grade of C or better is requisite to 100C. Credit for basic Hindi grammar and equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Introductory Hindi-Urdu. (5) Lecture, five hours. Enforced requisite: course 2 with grade of C or better. Course 100A with grade of C or better is requisite to 100B. Credit for basic Hindi grammar and equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Introductory Hindi-Urdu. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Course 100A with grade of C or better is requisite to 100B. Credit for basic Hindi grammar and equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

4. Intermediate Hindi-Urdu. (5) Lecture, five hours. Enforced requisite: course 4 with grade of C or better. Course 100A-100B-100C. Credit for basic Hindi grammar and equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

5. Intermediate Hindi-Urdu. (5) Lecture, five hours. Enforced requisite: course 4 with grade of C or better. Course 100A-100B-100C. Credit for basic Hindi grammar and equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

Indian Languages and Cultures / 239

Indonesian

Lower-Division Courses

1. Introductory Indonesian. (5) Lecture, three hours; discussion, two hours. Open to students who have learned enough Indonesian to qualify for more advanced courses. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). P/NP or letter grading.

2. Intermediate Indonesian. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 1 with grade of C or better. Open to students who have learned enough Indonesian to qualify for more advanced courses. P/NP or letter grading.

3. Introductory Indonesian. (3) Lecture, three hours; discussion, one hour. Open to students who have learned enough Indonesian to qualify for more advanced courses. P/NP or letter grading.

4. Intermediate Indonesian. (5) Lecture, five hours. Enforced requisite: course 4 with grade of C or better. Open to students who have learned enough Indonesian to qualify for more advanced courses. P/NP or letter grading.

5. Intermediate Indonesian. (5) Lecture, five hours. Enforced requisite: course 4 with grade of C or better. Open to students who have learned enough Indonesian to qualify for more advanced courses. P/NP or letter grading.

6. Intermediate Indonesian. (5) Lecture, five hours. Enforced requisite: course 4 with grade of C or better. Open to students who have learned enough Indonesian to qualify for more advanced courses. P/NP or letter grading.

7. Intermediate Indonesian. (5) Lecture, five hours. Enforced requisite: course 4 with grade of C or better. Open to students who have learned enough Indonesian to qualify for more advanced courses. P/NP or letter grading.

8. Intermediate Indonesian. (5) Lecture, five hours. Enforced requisite: course 4 with grade of C or better. Open to students who have learned enough Indonesian to qualify for more advanced courses. P/NP or letter grading.

9. Intermediate Indonesian. (5) Lecture, five hours. Enforced requisite: course 4 with grade of C or better. Open to students who have learned enough Indonesian to qualify for more advanced courses. P/NP or letter grading.

10. Intermediate Indonesian. (5) Lecture, five hours. Enforced requisite: course 4 with grade of C or better. P/NP or 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. Brooding of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

109. Honors Contracts. (1) Tutorial, 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.

189HC. 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 repeated for credit. P/NP or letter grading.

189HC. 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 repeated for credit. P/NP or letter grading.

190. 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.

199. Student Research Program. (1 to 2) Supervised research or other scholarly work, 3 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). P/NP or letter grading.

199HC. 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 repeated for credit. P/NP or letter grading.

199HC. 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 repeated for credit. P/NP or letter grading.
Upper-Division Courses

100A-100B-100C. Advanced Indonesian. (4-4-4) Lecture, three hours. Course 100A 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. Advanced Tutorial Instruction in Indonesian. (2) Tutorial, two hours. Requisite: course 8 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.

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 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.

Japanese

Lower-Division Courses

1. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. 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. Conversation drill based on material covered in class. P/NP or letter grading.

2. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Requisite: course 1 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. Introduction to modern Japanese with attention to conversation, grammar, and written forms for those with some Japanese knowledge. Conversation drill based on material covered in class. P/NP or letter grading.

3. Elementary Modern Japanese for Kanji Native Students. (5) Lecture, two hours; discussion, three hours. Requisite: course 2 or 3A. Elementary Modern Japanese for Kanji Native Students. (5) Lecture, two hours; discussion, three hours. Requisite: course 2A or 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.

4. Intermediate Modern Japanese. (5) Lecture, three hours; discussion, two hours. Requisite: course 3 or 3A. Elementary Modern Japanese for Kanji Native Students. (5) Lecture, two hours; discussion, three hours. Requisite: course 2A or 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.

5. Intermediate Modern Japanese. (5) Lecture, three hours; discussion, two hours. 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 4. P/NP or letter grading.

6. Intermediate Modern Japanese. (5) Lecture, three hours; discussion, two hours. 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.

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, vocabulary, and 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 3 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 course equivalent to courses 4, 5, and 6. Readings in modern Japanese with attention to conversation, grammar, and written forms for those with some Japanese knowledge. Conversation drill based on material covered in class. 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.


70. Images of Japan: Literature and Film. (5) Lecture, three hours. Enforced requisite: course 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. Introduction to visual and textual images of Japan’s literary heritage, including documentary and feature films based on Japan’s literary classics. Letter grading.

75. Anime. (5) Lecture, three hours; discussion, one hour. Discussion and analysis of seminal works of Japanese animation, or anime, created from 1980s to present. Engagement with works in variety of styles, and that deal with broad range of themes. Reading and discussion of recent scholarship on anime produced by scholars working in diverse modes, from philosophical to anthropological. Letter grading.

80. How Does It Move? Action and Moving Image in Modern Japan. (5) Lecture, four hours; discussion, one hour. How is action constructed on the screen? How has modern technological media informed and transformed our experience and understanding of action? Exploration of how our experience and conception of action is mediated by technological aesthetic media by tracing history of portrayal and experience of action both in media theory and practice. Focus on ways of moving image as action and reception of popular action film genres from Japan such as chambara or samurai film and yakuza film. Consideration also of their relationship to international film cultures (e.g. Hollywood western, gangster film, Chinese martial arts cinema, and contemporary Hollywood blockbusters) in context of broader historical transformations in media practice and in the media industry. 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 moving image. P/NP or letter grading.

90. 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.

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 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.

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 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, two hours. 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. May be taken concurrently with course 100A or who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Offered in summer only. P/NP or letter grading.

100. Third-Year Advanced Reading in Modern Japanese. (4) Lecture, three hours. 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 100B. Development of oral proficiency in understanding and speaking Japanese. Offered in summer only. P/NP or letter grading.

100C. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
cultural issues of contemporary Japanese society. Materials selected from contemporary publications, videos, and audiotapeces. 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. Kanji for Advanced Reading. (4) Lecture, three hours. Enforced requisite: course 100C or 100S with grade of C or better or Japanese placement test. Development of ability in kanji recognition/writing and Sino-Japanese vocabulary. Primarily for students who wish to solidify and enhance firm knowledge in kanji before engaging in advanced reading materials used in courses 105A and 105B. Also suitable for three years of Japanese learners who need to acquire enough kanji knowledge before taking courses 105A and/or 105B. May be taken after completion of course 101B or 101C, but not after completion of course 105A or 105B. P/NP or letter grading.

101B-101C. Fourth-Year Japanese: Advanced Reading I, II. (4–4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100S with grade of C or better or Japanese placement test. Not open to students who have learned, from what- ever 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 humanities and social sciences. May be repeated for credit. P/NP or letter grading.

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 humanities and social sciences. Offered in summer only. 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 or Japanese placement test. Development of listening and speaking abilities for students who need focused attention to these skills. Also suitable for graduate students who need advanced speaking ability. Not intended for those who are at intermediate 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. Development of listening and speaking skills as well as high degree of cultural understanding. Oral and written business communication, social etiquette in business conduct, Japanese economic and business climate, business law and regulations, resources for studying Japanese, and business case studies. P/NP or letter grading.

105A-105B. Advanced Reading and Writing for Japanese-Heritage Speakers. (4–4) Lecture, three hours; discussion, one hour. Enforced preparation: Japanese placement test. Not open to students who have taken 100 series, 101 series, and/or 103 series courses or 104. Designed for advanced-level Japanese-heritage learners or nonheritage learners who are fluent in Japanese. Emphasis on building vocabulary knowledge of Kana, reading and writing, and honorific/humble style of Japanese. Each course may be taken independently for credit. P/NP or letter grading.

108FL. Special Studies: Readings in Japanese. (2) Seminar, two hours. Requisite: course 100C or 100S with grade of C or better or Japanese placement test. Students register concurrently enrolled in affiliated main course. Additional work in Japanese to augment work assigned in main course, including reading, writing, and other exercises. May be repeated for credit. P/NP or letter grading.

109. Advanced Tutorial Instruction in Japanese. (2) Tutorial, two hours; Requisite: course 100C or 100S with grade of C or better. Enforced requisite: Japanese placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Japanese. May be repeated for credit. P/NP or letter grading.


110B. Introduction to Classical Japanese: Reading Proficiency. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 110A. Grammar and readings of selected premodern texts. P/NP or letter grading.


118. Language and Culture of Ryukyu/Okinawa. (4) Seminar, three hours; discussion, one hour. Enforced requisite: course 8 or 10 or Japanese placement test. Research seminar with reading, discussion, linguistic analysis, and development of culminating project. Letter grading.


120A-120B-120C. Readings in Classical Japanese Literature. (4–4–4) Seminar, three hours; discussion, one hour. Enforced requisite: course 110A. Readings and discussion of works of classical, medieval, and early modern Japanese literature. Each course may be taken independently for credit. Letter grading. 120A. Heian; 120B. Medieval; 120C. Edo.
raccoon dogs, snakes, and dragons. Exploration of different treatments of supernatural themes from ancient to modern times, and of relationship between supernatural literature and expressions of fear, cruelty, violence, misogyny, desire, hope, compassion, and humor. Letter grading.


172. Fiction and Flays of Floating World. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 50. Examination of broad selection of popular fiction and theater from late 17th to early 19th century, with focus on folk feature floating world of entertainment, including pleasure quarters, theater district, and realm of fiction. Letter grading.


189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to students who desire more advanced or specialized in-depth study of selected topics in Japanese Civilization. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, oral presentations, and/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.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as an adjunct to upper-division honors course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, oral presentations, and/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: Classical Japan. (4–4) 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, discussion, 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 students who desire more advanced or specialized in-
race, gender, and class. Examination of texts from every variety of literature, with particular emphasis on Japanese, S/U or letter grading.

C282. Japanese Folklore. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Lectures/discussions on native religious rituals (festivals) and observances of Japan, with special emphasis on artistic behavior. Discussion of Shinto, Shinto/Buddhist syncretism, and other non-Buddhist belief systems. Concurrently scheduled with course C182. Letter grading.


Korean

Lower-Division Courses

1. Elementary Modern Korean. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. For students who wish to complete one-year foreign language requirement at accelerated pace, P/NP or letter grading.

4. Intermediate Modern Korean. (5) Lecture, three hours; discussion, two hours. Required: course 3 or 3A 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 3. Conversation, composition, and readings with structural analysis in modern Korean. P/NP or letter grading.

5. Intermediate Modern Korean. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 4 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 4. P/NP or letter grading.

6. Intermediate Modern Korean. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 5 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 5. 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, and writing. Offered in summer only. P/NP or letter grading.

10. Intermediate Modern Korean: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Recommended preparation: course 3, 3A, or 8, or Korean placement test, or courses equivalent to elementary-level Korean. Second-year Korean. 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 readings with structural analysis in modern Korean. 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. 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 50. 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 examples—from pop 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 requirement.


M60. Introduction to Korean Religions. (5) (Same as Religion M60C.) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. General survey of history of religions in Korea—Shamanism, Buddhism, Confucianism, Daoism, Christianity, Tonghak, and some new religions—with focus on religious doctrines, practices, Korean characteristics, and social impacts. P/NP or letter grading.

70. Images of Korea. (5) Lecture, three hours; discussion, one hour. Knowledge of Korean culture, 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 Korean film history, attended by all students. Not open for credit to students with credit for course 80M or 100M. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division 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 utilizing campus resources. 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

100A-100B-100C. Advanced Modern Korean. (4–4–4) Lecture, three hours; discussion, two hours. Requisite: course 6, 6A, or 10 with grade of C or better or Korean placement test. Course 100A with grade of C
106SL. Superior Korean with Service Learning. (4) Lecture, three hours; fieldwork, two hours. Recommended preparation: course 101C. May not be taken concurrently with course 102A, 102B, 102C, 106A, or 107SL. Use of speaking, listening, reading, and writing skills to participate effectively, or understand without difficulty any practical, social, and professional topics, whether those topics are familiar or not. Opportunity for students to communicate in Korean in authentic contexts while providing useful service to community. P/NP or letter grading.

107A-107B-107C. Professional/Academic Korean. (4-4-4) Lecture, three hours. Recommended: course 101C or Korean placement test. Concurrently scheduled with course 107A or Korean placement test is requisite to 107C. 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 specialization areas. Special attention to vocabulary development on professional level. Development of both interactive and receptive listening. 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. Recommended: course 101C or Korean placement test. May not be taken concurrently with course 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 specialization areas. Special attention to vocabulary development on professional level. Research projects to be assigned according to student interests. Opportunity for students to communicate in Korean in authentic and professional contexts while providing useful service to community. P/NP or letter grading.

108FL. Special Studies: Readings in Korean. (2) Seminar, two hours. Recommended: course 100C or Korean placement test. Emphasis on academic writing in Korean. Students may be concurrently enrolled in affiliated main course. 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.

109. Advanced Tutorial Instruction in Korean. (2) Tutorial, two hours. Recommended: course 100C or Korean placement test. Tutorial and guided independent study to help students achieve superior proficiency in oral and written Korean. May be repeated for credit. P/NP or letter grading.

120. Topics in Korean Language and Culture. (4) Lecture, three hours; discussion, one hour. Recommended preparation: two years of Korean, or one year of Korean and some knowledge of linguistics. Discussion of major syntactic, semantic, and pragmatic characteristics of Korean in light of linguisitic theories. Examination of typological features, and phonological structure of Korean. Concurrently scheduled with course C220. Letter grading.

C220. Structure of Korean. (4) [Same as Linguistics M177.] Lecture, three hours; discussion, one hour. Recommended preparation: two years of college-level Korean, introduction of basic concepts in sociocultural linguistics, discourse analysis, and multimedia resources to study Korean language and culture. Study to increase understanding of variety of socio-cultural variables of Korean language. Exploration of interrelationship among language, culture, and society by examining Korean cinema and television drama, talk shows, music videos, digital discourse, advertisement, etc.). P/NP or letter grading.


CM130. Readings in Modern Korean Literature. (4-4) Lecture, three hours. Enforced requisites: course 100C or Korean placement test, English Composition 3 or equivalent course from Comparative Literature 1A, 1B, 1C, 1D. Readings and discussion of major modern Korean literary texts. Each course may be taken independently for credit. Letter grading.

CM138. Modern Korean Academic Texts. (4) Seminar, three hours. Recommended: Korean 101C or Korean placement test. Designed to improve reading skills for students who have studied Korean to advanced level, and enhance their understanding of Korean culture and society. Covers Korean academic texts (book chapters, journal articles, reviews, and primary sources) on various issues of modern Korean literature, history, philosophy, religions, economy, and politics. P/NP or letter grading.


C151. Korean Literature in Translation: Modern. (4) Lecture, three hours; discussion, one hour. Recommended: English Composition 3 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.

C153. 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.

C154. Contemporary Korean Culture through Literature and Film. (4) Lecture, three hours; discussion, one hour. Recommended preparation: M177 or M177L. Knowledge of Korean not required. Use of fiction and film to explore contemporary Korean culture in cross-cultural context. P/NP or letter grading.

C155. Topics in Korean Cinema. (4) Lecture, one hour; discussion, one hour; film viewing, three hours. Knowledge of Korean not required. Historical and critical survey of Korean cinema, examining interaction between 20th-century Korean history, politics, and filmmaking. P/NP or letter grading.

C159. Variable Topics in Culture and Society in Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of relationships between culture and society in Korea. Reading, audio and visual material, discussion, and development of culminating projects and/or writing assignments. May be repeated for credit with topic change. Letter grading.

CM160. 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.
165. Introduction to Korean Buddhist Texts. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 100A or Chinese 110C or Korean placement test. Introduction to reading premodern Korean Buddhist texts written in Sino-Korean and taking from Indian, Mahayana, and philosophical writings, Korean Buddhist apocryphal scriptures, native exegetical commentaries, and Son (Zen) texts. Coverage varies. Texts may be read in either Sino-Korean or literary Chinese. May be repeated with consent of instructor. Letter grading.

172. Topics in Korean Christianity. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Survey of development of Christianity in Korea, beliefs and practices, impact of Christianity on modern Korean culture and society. Coverage varies. May be repeated for credit with consent of instructor. Letter grading.

175. Intellectual History of Premodern Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. General survey of Korean thought from earliest records to 19th century, including shamanism, Taoism, Buddhism, Christianity, and neo-Confucianism. Korean traditions and those found in India, China, Japan, and West. P/NP or letter grading.

176. Introduction to Korean Consonant Texts. (4) Lecture, three hours. Enforced requisite: course 100C or Chinese 110C or Korean placement test. Reading in premodern Koryo and Choson texts on politics, society, and culture. Coverage varies. Texts may be read in either Sino-Korean or literary Chinese. May be repeated with consent of instructor. P/NP or letter grading.

C177. Intellectual History of Modern Korea. (4) Formerly numbered 177. Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Survey of Korean thought in late 19th and 20th centuries, including religious thought, political thought, nationalism, and economic thinking. Confrontations with European influence. Lecture scheduled with course C277. P/NP or letter grading.

178. Introduction to Modern Korean Historiography. (4) Seminar, three hours. Enforced requisite: course 101A or 110A or Korean placement test. Introduction to major Korean language historiographical works on Korean history in modern period. Coverage varies. May be repeated with consent of instructor. P/NP or letter grading.

180A-180B-180C. History of Korea. (4–4–4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of evolution of Korean culture and society within context of political and institutional development of both high and popular culture. P/NP or letter grading. 180A. Through 1259; 180B. 1260 through 1876; 180C. Since 1876.

181. Reading Korean Cultural Landscape. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Introduction to Korean culture from historical/geographical perspective. Examination of human cultural imprint on land in religious, linguistic, rural, and urban landscapes. Letter grading.

182, 184. Kao Reform: History at Crossroads of Civilizations. (4) Seminar, three hours. Knowledge of Korean not required. Examination of modernizing reforms adopted in Korea in 1894. Consideration of conflict among different groups who had studied in Japan and U.S., moderate reformers who followed Chinese model of adopting Western technology to defend Confucian order, and orthodox Confucians who strongly opposed any changes. Focus on historical and intellectual background in first half, with debates among students who assume roles in Deliberative Council that was responsible for designing reforms in second half. Letter grading.

183. Korean Folklore. (4) Lecture, three hours; discussion, one hour. Survey of Korean folklore and its perspectives and methods—oral literature, performing folk arts, social folk custom, and material culture. P/NP or letter grading.

184. Women in History: Korea. (4) Lecture, two and one half hours; discussion, one hour. Examination of Korean history from perspective of women. Because gender roles and identities are social constructs and thus vary over time and place, consideration of how relations between gender has been continuously reconstructed. Examination of how premodern women's identities formed through continual negotiation by women and men with larger processes of political, social, and cultural change, such as formation of centralized bureaucratic systems, rise of aristocratic social system, and propagation of, and challenges to, Confucian social norms. Examination of how after opening of Korea, role of education brought about changes in women's education, employment, social/legal status, especially in context of colonialism, war, democratization, and economic development. Coverage varies. May be repeated with consent of instructor. Letter grading.

184A. Women in History: Premodern Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of premodern Korean history from perspective of women. Consideration 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 transformation. Discussion of changes 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.

185. 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, views on education as vehicle for social mobility, and problems related to excessive emphasis on education. P/NP or letter grading.

M186. Korea and Vietnam: Comparative Modern Histories. (4) Same as Vietnamese M186. Seminar, three hours. Comparative survey of intertwined and parallel histories of 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, and colonial forces contributed to tran- sition 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 anti-communist regimes in south. Each also experienced warfare 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. Introduction to history, forms, and scholarship concerning folk religion in Korea. Exploration of forms of popular and folk religion in Korea, including shamanism, ancestor worship, and contemporary religions. Consideration of fortune-telling, geomancy, and spirit belief. P/NP or letter (undergraduates), S/U (graduates), or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to students in Deliberative Council. Admission 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 for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in Deliberative Council. Honors Program. Admission 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.

191A. Variable Topics Research Seminars: Premodern or Early Modern Korea. (4) Seminar, three hours. Research seminar on selected topics in premodern or early modern Korea. Reading, discussion, and development of culminating project. May be repeated for credit. 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 who desire more advanced or specialized instruction in Korean. Individual intensive study with consent of instructor. 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 literary, folk/region, folklore, cultural history, language, and society. May be repeated for credit. S/U or letter grading.

C205A-C205B. Reading Korean Academic Texts. (4–4) Lecture, three hours. Requisite: course 101C or Korean placement test. Intended to improve reading skills for students who have studied Korean to advanced level, with coverage in Korean of materials on Korean history, culture, and society. Each course may be taken independently for credit. Concurrently scheduled with courses C105A-C105B. S/U or letter grading.

C205C. Reading Korean Academic Texts. (4) Lecture, three hours. Intended to improve reading skills for students who have studied Korean to advanced level, with coverage in Korean of materials on Korean history, culture, and society. May be taken independently for credit. Concurrently scheduled with course C105C. S/U or letter grading.


211. Thought and Society in Modern Korea. (4) Discussion, three hours. Preparation: reading knowledge of Korean. Designed for graduate students. Critical examination of list of books central to field of modern Korean history, including such topics as Korean capital- ism and communism, intellectual history, social movements, and Korean War. Letter grading.

212. 19th-Century Korea. (4) Seminar, three hours; discussion, one hour. Requisite: course 180B or 180C. Preparation: covering contents from Emancipation of Sunjo in 1800 to annexation of Korea by Japan in 1910, including major historical scholarship on political, diplomatic, social, economic, intellectual, and cultural history. Letter grading.

215. Korean Literary History. (4) Lecture, three hours. Designed for graduate students. Critical history of development of traditional Korean literature, with emphasis on canon and ideology, literary systems, hier-
246. Reading Korean Scholarly Journals: Social and Cultural Change as Reflected in Academic Discourse. (4) Seminar, three hours. Recommended preparation: basic reading knowledge of Korean. Reading of recently published academic journal articles in Korean languages. Survey of 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.

M60. Religion in Classical India: Introduction. (5) (Same as Religion M600.) Lecture, three hours; discussion, one hour. Introduction to religions of classical India—Vedic, Brahmanical, Hindu, Jain, and Buddhist—paying equal attention to contrasts and debate with emphasis on chronological development. P/NP or 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, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. Letter 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. Readings in Sanskrit. (4) Lecture, three hours. Requisite: course 110C. Extensive reading in such texts as best serve students’ needs. May be repeated for credit with consent of instructor. P/NP (undergraduate), S/U (graduate), or letter grading.

120. Classical Indian Literature in Translation. (4) Lecture, three hours. Knowledge of Asian languages not required. Survey of some landmarks of classical Indian literature from second millennium BCE into second millennium CE, including both poetry and prose, “high” art and more popular genres, and secular and religious texts, examined in their social and institutional contexts. P/NP or letter grading.

155. Topics in South Asian Cinema and Literature. (4) Seminar, three hours. Requisite: course 110C. 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. 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 on archaeological, art historical, and in-
Southeast Asian Lower-Division Courses

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion/exploring 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.


50. Southeast Asian Societies and Cultures. (5) Lecture, three hours; discussion, one hour. General introduction to varied and diverse region of Southeast Asia. Designed to acquaint students with broad themes that characterize societies, cultures, and civilizations of this vitally important part of globe. Study of historical trajectories that have led eleven countries of region to present situations. Emphasis on examination of these societies and important contemporary issues. Discussion of and critical thinking about, culture, literature, gender issues, religion, human rights, and environment. P/NP or letter grading.

M60. Religious Traditions in Southeast Asia. (4) Same as Religion M60E.) Lecture, three hours. Introductory to development and contemporary practice of religions in Southeast Asia. Examination of indigenous religious beliefs and major textually based religions introduced to region, including Hinduism, Buddhism, Islam, and Christianity. P/NP or letter grading.

70. Modern Southeast Asian Literature. (5) Lecture, three hours; discussion, one hour. Introduction to modern Southeast Asian literature. Designed to expose students to range of literatures, predominantly novels and short stories, that were written across this region in response to dramatic changes caused by colonialism and its legacy. 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. Letter grading.

Upper-Division Courses

C120. Ghosts, Spirits, and Witches: Supernatural in Southeast Asia. (4) Lecture, two hours; discussion, one hour. From magical tattoos and faith healing to angry ghosts and disemboweled flying vampires, exploration of fantastic supernatural 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 diverse region. Exploration of also of unique regional concepts of death, morality, and justice that animate and frame Southeast Asian attitudes towards supernatural phenomena in modern world. Concurrently scheduled with course C220. P/NP or letter grading.

130. Topics in Southeast Asian Literature. (4) Lecture, three hours. Requisite: one course from Comparative Literature 1A, 1B, 1C, 1D, 2AWB, 2CW, or English Composition 3 or 3H. Knowledge of Southeast Asian languages not required. Advanced exploration of Southeast Asia through in-depth reading of texts from region. Topics include censorship, politics, language, and literature. P/NP or letter grading.

135. Religion and Society in Southeast Asia. (4) Lecture, three hours; discussion, one hour. Recommended prerequisite: prior course in Asian cultures or history. Multidisciplinary survey of peoples of upland Southeast Asia and critical issues affecting them. Topics include history, culture, human rights, ethnicity, religion, politics. Concurrently scheduled with course C240. P/NP or letter grading.

C140. Zonia: Peoples, Societies, and Cultures of Upland Southeast Asia. (4) Formerly numbered 140.) Lecture, three hours; discussion, one hour. Recommended prerequisite: prior course in Asian cultures or history. Multidisciplinary survey of peoples of upland Southeast Asia and critical issues affecting them. Topics include history, culture, human rights, ethnicity, religion, politics. Concurrently scheduled with course C240. P/NP or letter grading.

C150. Indigenous Peoples of Southeast Asia. (4) Lecture, two hours; discussion, one hour. In Southeast Asia, indigeneity is multi-layered concept. Most of population is native, yet there are specific ethnic groups that are legally designated or otherwise recognized as indigenous peoples. Ideas about indigeneity also cross time and space, among indigenous peoples themselves, in ways that do not always align with elements valorized in anthropological, political, or global advocacy contexts. Offers local/national and regional representation to understand indigenous peoples in Southeast Asia, but situation politically within wider, global discussions and debates about indigeneity and advocacy, as well as global academic scholarship pertaining to indigenous peoples. Study of most pertinent issues relating to modern indigenous realities in Southeast Asia. Students gain foundation to engage in comparative discussion with regard to indigenous peoples in Americas and elsewhere. Concurrently scheduled with course C250. P/NP or letter grading.

157. Gender Issues in Southeast Asia. (4) Seminar, three hours. Critical examination of gender issues in one or more Southeast Asian countries as they connect to social historical contexts nationally, regionally, or globally. May be repeated for credit. P/NP or letter grading.

C170B-170C. Topics in Southeast Asian Studies. (4–4–4) Lecture, three hours. Exploration of Southeast Asian culture through in-depth reading of texts and/or visual documents. Topics include literature, religion, folklore, cultural history, and society. 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.
Thai

Lower-Division Courses

1. Introductory Thai. (5) Lecture, three hours; discussion, two hours. Course 100B with grade of C or better. Coverage of basic Thai grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Intermediate Thai. (5) Lecture, three hours; discussion, two hours. Required: course 1 with grade of C or better. Coverage of basic Thai grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Intermediate Thai. (5) Lecture, three hours; discussion, two hours. Required: course 2 with grade of C or better. Coverage of basic Thai grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

4. Intermediate Thai. (5) Lecture, five hours. Reinforcement of basic Thai 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 Thai. (5) Lecture, five hours. Enforced requisite: course 4 with grade of C or better. Reinforcement of basic Thai 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 Thai. (5) Lecture, five hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. 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.

99. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Honors content noted on transcript. Letter grading.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students. Honors content noted on transcript. Letter grading.

99. Student Research Program. (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 honors contract required. Honors content noted on transcript. Letter grading.

100A-100B. Advanced Thai. (4-4-4) Lecture, three hours. Course 100A with grade of C or better is required. 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) Tutorial, two hours. Enforced requisite: course 6 or Thai placement test. Tutorial and guided independent study to help students develop advanced proficiency in oral and written Thai. May be repeated for credit. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 30 students. Enforced requisite 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.

Vietnamese

Lower-Division Courses

1. Introductory Vietnamese. (5) Lecture, two hours; discussion, three hours. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Enforced requisite 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.

2A. Introductory Vietnamese for Heritage Learners. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

5A. Introductory Vietnamese for Heritage Learners. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1A with grade of C or better or Vietnamese placement test. Not open to students who have learned, from whatever source, enough Vietnamese to qualify for more advanced courses. Designed for Vietnamese-heritage learners who have some limited knowledge of Vietnamese or have had no formal instruction in Vietnamese. Emphasis on spelling, basic grammar, reading, writing, daily conversation, and polite forms. P/NP or letter grading.

3. Introductory Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Vietnamese 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 or Vietnamese placement test. Not open to students who have learned, from whatever source, enough Vietnamese to qualify for more advanced courses. Designed for Vietnamese-heritage learners who have some limited knowledge of Vietnamese or have had no formal instruction in Vietnamese. Emphasis on spelling, basic grammar, reading, writing, daily conversation, and polite forms. P/NP or letter grading.
3R. Introductory Vietnamese Reading and Writing. (5) Lecture, five hours. Recommended preparation: speaking and listening skills in Vietnamese. Training in reading and writing skills at elementary level, equivalent to completion of one 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 Vietnamese 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 Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Reinforcement of basic Vietnamese 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 Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Vietnamese grammar and coverage of more advanced topics. Broadening of skills in composition and conversation; reading of selected texts. P/NP or letter grading.

8. 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 writing, reading, conversation, and composition. Offered 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. Knowledge of Vietnamese not required. Focus on popular culture produced and consumed by, or about, people in Vietnam and diasporas. Materials include theoretical and other scholarly texts, as well as literature, music, visual art, films, and comics. Reading of scholarly writings for argument, date, and methods, and learning to apply theoretical frameworks in readings and lectures to analysis of popular cultural productions. 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 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

100A-100B-100C. Advanced Vietnamese. (4-4-4) Lecture, three hours. 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 Vietnamese, particularly its culture.
Undergraduate Majors

Atmospheric and Oceanic Sciences BS

Learning Outcomes

The Atmospheric and Oceanic Sciences 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

Preparation for the Major

Required: Atmospheric and Oceanic Sciences 51, M71 (preferred) or Program in Computing 10A, 90; Chemistry and Biochemistry 14A and 14B, 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.

Transfer Students

Transfer applicants to the Atmospheric and Oceanic Sciences 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 calculus, one year of calculus-based physics with laboratory, one general chemistry course with laboratory for majors, and one MATLAB, Python, or C++ programming course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Four courses from Atmospheric and Oceanic Sciences 101, 103, 104, M105, 107, 112, three additional upper-division atmospheric 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

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:

- 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

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, M7, 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.

Policies

Each course must be taken for a letter grade and must be passed with a grade of C– or better, and students must have a minimum overall grade-point average of 2.0 for the courses.

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: two years of calculus for majors, physics courses equivalent to Physics 1A, 1B, and 1C, and one MATLAB, Python, or C++ programming course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

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 199, 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.
Climate Science BS

Learning Outcomes
The Climate Science major has the following learning outcomes:

- Demonstrated mastery of the basic principles and tools of science
- Demonstrated fundamental understanding of the atmospheric and oceanic sciences
- Demonstrated analytical and mathematical skills through the application of learned concepts and tools in solving relevant theoretical, computational, and empirical problems
- Ability to apply knowledge gained to independently identify, analyze, and understand real-world problems and issues
- Demonstrated effective oral and written communication of results and conclusions
- Understanding of the societal and policy context of climate science

Preparation for the Major

Required: Atmospheric and Oceanic Sciences 51, M71 or Program in Computing 10A; Chemistry and Biochemistry 14A and 14B, or 20A and 20B; Life Sciences 30A and 30B, or Mathematics 3A, 3B, and 3C, or 31A, 31B, 32A, and 33B; Physics 1A, 1B, and 1C, 1AH, 1BH, and 1CH, or 5A, 5B, and 5C; Statistics 10, 12, or 13.

Students interested in pursuing graduate studies in climate sciences or other branches of science are encouraged to select the Mathematics 31A through 33B sequence and the Physics 1 sequence.

Transfer Students

Transfer applicants to the Climate Science major with 30 or more units 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 with laboratory, one general chemistry course with laboratory for majors, one course in programming (MATLAB or Python), and one introductory statistics course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Atmospheric and Oceanic Sciences 101, M105, C110, 112, 145, and two additional upper-division policy/solutions or quantitative courses from a preapproved list. Upper-division electives may also be selected in consultation with the undergraduate advisers. Students preparing for graduate studies in climate science or other areas should discuss specific requirements with the undergraduate advisers.

Policies

Atmospheric and Oceanic Sciences 199 (independent research) taken for 4 units may be used to satisfy one upper-division elective. Thesis approval required from faculty advisor and submitted to department student affairs officer.

Undergraduate Minor

Atmospheric and Oceanic Sciences Minor

The Atmospheric and Oceanic Sciences minor provides a formal vehicle for students specializing in other science fields to pursue interests in the atmospheric and oceanic environment. It is designed to be flexible, recognizing that many topics in this field cross traditional disciplinary boundaries.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better and must make an appointment with a departmental undergraduate adviser for approval in selecting a coordinated program of courses from within the department and related disciplines. For more information, contact the department at 310-825-1954.

The Minor

Required Courses (28 units): Seven 4-unit courses, including (1) three from Atmospheric and Oceanic Sciences M100, 101, 102, 103, 104, M105, M106, 107, C110, 112, CM114, C115, M120, 130, 135, 141, 145, 150, C160, C170, 180, 199, 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, 166 (must be taken twice), Chemistry and Biochemistry 103, 110A, 110B, 110C, 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.

Groups of courses relevant to specific subareas of atmospheric sciences include (1) atmospheric chemistry: Atmospheric and Oceanic Sciences 104. Chemistry and Biochemistry 103, 110A, 110B, C113B, 114; (2) atmospheric chemistry and biology: Atmospheric and Oceanic 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, 180. Mathematics 115A, 115B, 132, 135, 136, 142, 146; (5) oceanography and biology: 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, C120, 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

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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.

2L. Air Pollution Laboratory. (1) Laboratory, one hour. Enforced corequisite: course 1, Investigations and demonstrations supporting material in course 1, including greenhouse effect, atmosphere and ocean circulation, past, present, and future climates, and role of science in climate change politics. 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.

2L. Air Pollution Laboratory. (1) Laboratory, one hour. Enforced corequisite: course 2. Investigations and demonstrations supporting material in course 2, including box model simulation, dose responses, air parcel motion and pollution dispersion, daily and seasonal variation of smog pollutants, and smog transport. P/NP or letter grading.

3. Introduction to Atmospheric Environment. (4) Lecture, three hours; discussion, one hour. Nature and causes of weather phenomena, including atmospheric circulation, clouds and storms, lightning and precipita-

Upper-Division Courses


Upper-Division Courses


Upper-Division Courses


Upper-Division Courses


Upper-Division Courses


Upper-Division Courses


Upper-Division Courses


Upper-Division Courses


Upper-Division Courses


Upper-Division Courses


Upper-Division Courses


121. Climate Solutions. (4) Lecture, three hours; discussion, one hour. Requisite: one course from course 1, 2, 3, 5, M100, 102, or 112. Critical survey of potential strategies to mitigate climate change and solving problems in infrastructure, transportation, energy, waste, and agricultural sectors, as well as geoengineering. Analysis of roles of communication, equity, religion, social change, and education in mitigating climate change. P/NP or letter grading.

123. Climate Change Adaptation Challenge. (4) Lecture, three hours; discussion, one hour. Recommended requisites: courses 1, 5, Environment 10. Development of fundamental understanding of climate change adaptation challenges facing humanity. Such challenges stem from changes in physical climate system, such as warming and increases in heat extremes, loss of snow and ice, sea level rise, increases in extreme precipitation, deepening droughts, increases in wildfire, deteriorating air quality, changes in ocean circulation, and shifts in oceanic and atmospheric research. Examination of these challenges, as well as associated stresses on human and natural systems. Examination of these issues from local, regional, and global perspectives, emphasizing interactions with other deep climate sustainabilty challenges. P/NP or letter grading.

130. California's Ocean. (4) Lecture, four hours. Recommended requisite: course 103 or M105. Circulation, biogeochemistry, biota, water quality, measurement techniques, data analysis, and management for California's coastal ocean, including coastal measurement cruise and term project (paper and presentation). Letter grading.

135. Ocean Change in the Anthropocene. (4) Lecture, three hours; laboratory, 90 minutes. Requisites: courses 103, 105. Review of main impacts of human activities on ocean, from warming and acidification to overfishing and pollution, and exploitation of marine resources. Discussion of concepts of governance and sustainability. Introduction to global ocean datasets and IPCC-class model output. Student-led presentation to review significant papers from scientific literature. 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 interaction between Earth's surface and atmosphere. It is strongly affected by turbulence, and plays important role in exchange of heat, momentum, trace gases, and aerosols between Earth's surface and free troposphere. Investigation of properties of atmospheric boundary layer and 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; discussion, one hour. Requisites: Physics 1A, 1B, and 6A, or 6C, and 66, and 6C. Theory and application of atmospheric radiation, aerosol, and cloud processes. Topics include radiative transfer, cloud 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. Requisites: Mathematics 3B or 31B, Physics 1B and 1C (or 6B and 6C). Many of today's environmental problems, such as stratospheric ozone hole, current rise of greenhouse gas concentrations, and various severe weather phenomena, were first discovered and investigated using accurate observational techniques. Direct experimental observations remain crucial component in study for better understanding weather, climate, and pollution of atmosphere and ocean. Introduction to experimental/observational approach in atmospheric and oceanic sciences. Students work in groups to gain hands-on experience in setup, performance, analysis, and reporting of different experiments. Introduction to underlying principles of these experimental methods and basic data analysis tools. P/NP or letter grading.

155. Introduction to Ecosystem-Oceanic-Atmosphere Interactions. (4) Lecture, three hours; discussion, one hour. Exchanges of energy, moisture, atmospheric trace gases, and momentum between terrestrial ecosystems and atmosphere. Interactions and feedbacks between physical environment and physiological status of plants and soils. Topics include canopy structure and leaf energy balance, and carbon and water fluxes between plants, soils, and atmosphere. Letter grading.

160. Remote Sensing of Atmosphere and Oceans. (4) Lecture, three hours. Requisite: Physics 1C. Application of remote sensing: atmospheric spectroscopy, scattering, and polarization; passive and active techniques; relevant satellite systems; inversion methods; remote sensing of clouds, precipitation, and cloud and trace constituents; remote sensing of oceans and biosphere. Concurrently scheduled with course C240B. P/NP or letter grading.


200C. Special Topics in Atmospheric and Oceanic Sciences. (4) Lecture, three hours; discussion, one hour. 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.

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 Atmospheric and Oceanic Sciences. (2 to 4) Tutorial, to be arranged. Limited to 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 Atmospheric and Oceanic Sciences. (2 to 4) Tutorial, to be arranged. Limited to seniors and required for Mathematics/ Atmospheric and Oceanic Sciences majors. Super-vised 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. Introduction to Atmospheric and Oceanic Sciences. (4) Lecture, three hours. Enforced requisite: course 101 with grade of B+ or better. Limited to Atmospheric and Oceanic Sciences majors. Daily contact with weather data and forecasts, satellite and radar data. Introduction to weather forecasting for aviation, air pollution, marine weather, fire weather, and public use. Includes daily weather map discussions and visits to observing, radiosonde, and radar installations. Letter grading.

200C. Special Topics in Atmospheric and Oceanic Sciences. (4) Lecture, three hours; discussion, one hour. 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.

200B. Introduction to Dynamics of Earth System. (4) Lecture, three hours. Overview of general circulation of atmosphere and ocean; global energy balance; modeled circulation; mesoscale, synoptic, and tropical phenomena; boundary layers, clouds, and convection; biogeocenrical cycles; climate variability and change. S/U or letter grading.


201B. Geophysical Fluid Dynamics II. (4) Lecture, three hours. Enforced requisite: course 201A. Anelastic approximation. Small-scale gravity waves in atmosphere. Critical levels. Kelvin/Helmholtz insta-
201C. Atmospheric and Oceanic Turbulence. (4) Lecture, three hours. Requisite: course 200A. Recommended: course 201A. Turbulent flows that occur on relatively small scales in the atmosphere and ocean. Classical homogeneous, shear, convective, and boundary-layer turbulence and its geophysical modification due to stratification, Earth’s rotation, and water/ice density changes. S/U or letter grading.


M203A. Introduction to Atmo-spheric Chemistry. (4) (Same as Civil Engineering M262A.) Lecture, three hours. Requisite: course 20. Principles of chemical kinetics, thermochemistry, spectroscopy, and photochemistry; chemical composition and history of Earth’s atmosphere; biogeochemical cycles; organic and inorganic constituents; biophysics 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 radiative transfer; absorption, emission, and scattering of solar and infrared radiation; radiation budget considerations; aerosols in atmosphere; principles of water droplet and ice formation; diffusion and accretion; precipitation processes; radiative forcings of clouds/aerosols and climate feedback. S/U or letter grading.

204. Introduction to Machine Learning for Physical Sciences. (4) Lecture, 90 minutes; laboratory, 90 minutes. Designed for physics 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 concepts of ML. Requisite: mathematical maturity. Focus on solving typical problems that algorithms do. Focus on solving typical 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.

205A. Introduction to Solar System Plasmas. (4) Lecture, three hours; discussion, one hour. Introduction to basic plasma physical processes occurring in sun, solar wind, magnetospheres, and ionospheres of planets, using simple fluid (magnetohydrodynamic) models and particle (reconnection, solar wind) models. 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; discussion, one hour. Solar, interplanetary, magnetospheric, ionospheric, auroral, geomagnetic phenomenological and theoretical background for physics. Conceptual understanding and literacy in space physics terminology 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 collisional and magnetized ( unmagnetized) plasmas: currents, drifts, and instabilities. Examples of upper atmospheric interaction with lower atmosphere and magnetosphere. 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.

M206. Introduction to Biophysical Modeling of Land Surface Processes and Climate. (4) (Same as Earth, Planetary, and Space Sciences M260.) Lecture, two hours; laboratory, one hour; reading period, one hour. Designed for graduate students. Presentation of introductory knowledge for graduate students to understand nature, principles, and scope of biophysical modeling of land surface processes, including ideal canopy model, radiation, heat and CO2 fluxes transfer, and satellite application. Laboratory sessions included. S/U or letter grading.

209. Climate Change Assessment. (4) Lecture, three hours; discussion, one hour. Corequisites: graduate atmospheric, oceanic, hydrological, or climate science courses. Lectures, discussions, 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 macromodels, topics included in Intergovernmental Panel on Climate Change (IPCC). Issues in modeling current climate, including natural climate variability, paleoclimate, and global change 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 M229.) Lecture, three hours. Enforced prerequisite: 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, cloudiness parameterization, and climate hysteresis. S/U or letter grading.

211. Planetary Wave Dynamics and Teleconnections in Atmosphere/Ocean. (4) Lecture, three hours. Requisites: courses 201A and 214. Dynamics of planetary wave motions, atmospheric climate, and biogeochemical transport. 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.

214. Theoretical Climatic Dynamics. (4) Lecture, two hours; discussion, one hour. Introduction to geophysical fluid dynamics models (EBMs). Multiple equilibrium climates and their stability. Coupled EBM of atmosphere and oceans. Climatic history of our planet. Continuum mechanics and fluid dynamics. Examples of Quaternary glaciation cycles. Transitions from equilibrium to periodic and aperiodic behavior. Climatic predictability. 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.

216A. Tropical Motions with Moist Processes. (4) Lecture, three hours. Requisite: course 201C. Cumulus convection and the boundary layer in tropics. Convective boundary layers and mesoscale systems. Interaction of cumulus convection with large-scale environment. Tropical cyclones. Monsoon meteorology. 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.


217. 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 variations: large-scale atmospheric, physical, and ocean circulations. Regional climate/landscape models. S/U or letter grading.

218. Dynamics of Atmosphere/Ocean System. (4) Lecture, three hours. Transfer of properties between atmosphere and ocean; wave-air interactions; wind forcing; coastal upwelling, Air/sea interactions. Effects of ocean 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.

C222. Atmospheric Boundary Layer. (4) Lecture, three hours. Atmospheric boundary layer is lowest portion of atmosphere, representing interface between Earth’s surface and atmosphere, is strongly affected by surface turbulence, and plays important role in exchange of heat, momentum, trace gases, and aerosols between Earth’s surface and free troposphere. Investigation of properties of atmospheric boundary layer and processes. Concurrently scheduled with course C144. S/U or letter grading.

224A. Atmospheric Turbulence. (4) Lecture, three hours. Kinematics of homogenous and shear flow turbulence. Surface and planetary boundary layers, including exchange of momentum, heat, water vapor, and trace compounds. Scalar field and laboratory observations and their interpretation by theory. S/U (for majors with consent of instructor) or letter grading.

224B. Atmospheric Diffusion and Air Pollution. (4) (Same as Civil Engineering M228B) Lecture, three hours. Nature and sources of atmospheric pollution; diffusion and transport in the atmosphere; air pollution dispersion in urban complexes; meteorological factors and air pollution potential; meteorological aspects of air pollution. S/U (for majors with consent of instructor) or letter grading.


227. Advanced Dynamic and Synoptic Meteorology. (4) Lecture, three hours. Requisites: courses 201C, 225B. Numerical and analytical modeling of convective and mesoscale processes from shallow heat sources to large complex systems. Model frameworks, assumptions, parameterizations, and solution techniques. Role of modeling efforts in understanding dynamic structure and behavior of 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.

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 chemistry; regional and global biogeochemical 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; stratospheric pollution and ozone layer; physical chemistry of upper atmosphere clouds and aerosols; chemistry of stratospheric and mesospheric processes; observational techniques and results. 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, M203B, M203C. Equations of tracer transport and chemical kinetics modeling in the earth system; 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. Aquatic Geomicrobiology. (4) (Same as Earth, Planetary, and Space Sciences CM214) Lecture, three hours; discussion, one hour. Concurrently scheduled with course C110. S/U or letter grading.

244A. Atmospheric Radiation. (4) Lecture, three hours. Requisite: course 203A. Study of computation methods for solar and thermal infrared radiative fluxes and heating rates in clear, aerosol, and cloudy atmospheres for climate studies. Topics include: radiative transfer in general and one-dimensional radiative transfer; radiative and convective energy balance; atmospheric scattering using Mie atmospheres; and global radiative equilibrium. 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.


245. Aerosol-Climate Interactions. (4) Lecture, three hours; laboratory, one hour. Requisite: course 203B. Study of how aerosols can affect weather and climate by clouds through their potential to act as cloud condensation or ice nuclei and with radiation through their ability to scatter and absorb solar and terrestrial radiation. Origin, properties, and uncertainties of aerosols and aerosol-cloud and aerosol-radiation interactions in 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 M250A.) Lecture, three hours. Requisite: course C205A. Derivation of MHD equations with two fluid aspects, general limit of small amplitude waves, discontinuities, shock waves, and instabilities. Applications to statics and dynamics of solar wind and planetary magnetospheres and to solar wind/magnetosphere/ionosphere 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.

250B. Solar System Microscopic Plasma Processes. (4) Lecture, three hours. Requisite: course C205A. Adiabatic 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.


259. Space Weather. (4) Lecture, three hours. Identification, description, and theories for major disturbances in magnetosphere/ionosphere/thermosphere system. Storms, substorms, convection bands, and other disturbances, connections to interplanetary conditions, particle injection and precipitation, current fields and S/U 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 methods. Model validation and evaluation, significance tests, error analysis, bias detection. Emphasis on practical applications, with specific examples from atmospheric and oceanic sciences. Concurrently scheduled with course C182. S/U 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.


276. Seminar: Mesoscale Processes. (2) Seminar, one hour. Selected topics of current research interest in convection, 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 grading.

281. Special Topics in Dynamic Meteorology. (2 to 4) Lecture, two hours. Individual meetings with instructor to be arranged. Content varies from year to year. 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 predictions), objective prediction using traditional statistical methods, ensemble prediction, and data assimilation. May be repeated for credit. S/U or letter 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.

296A. Ocean Dynamics. Research group meeting, two hours. S/U grading.

296B. Boundary Layers, Clouds, and Climate. S/U grading.


296D. Climate Dynamics. S/U grading.


296H. Recent Advances in Atmospheric Chemistry. S/U grading.


296L. Geophysical Fluid Dynamics, Oceanography, and Climate. S/U grading.


296P. Advanced Topics in Atmospheric Dynamics. (2–2–2) Seminar, one hour; discussion, one hour. Topics in atmospheric dynamics and stratigraphic evidence for climate change throughout geological past. Rheology and dynamics of climatic subsystems: atmosphere and oceans, ice sheets and marine ice, lithosphere and mantle. Climate of other planets. Modeling, simulation, and prediction of modern climate on monthly, seasonal, and interannual time scales. May be repeated for credit. S/U or letter grading.


375. Teaching Assistant Practicum. (1 to 4) Seminar, to be arranged. Preparation: teaching 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 Ph.D. 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.


The bioengineering program is accredited by the Engineering Accreditation Commission of ABET.

Capstone Major

The Bioengineering major is a designated capstone major. Utilizing knowledge from previous courses and new skills learned from the capstone courses, undergraduate students work in teams to apply advanced knowledge of mathematics, science, and engineering principles to address problems at the interface of biology and engineering and to develop innovative bioengineering solutions to meet specific sets of design criteria. Coursework entails construction of student designs, project updates, presentation of projects in written and oral format, and team competition.

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

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 M20; 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; Engineering 181EW or 182EW or 183EW or 185EW; 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, C103, C104, C105, C106, C107, C121, C131, C139A, C139B, C140, C145, C147, M153, C155, CM178, C179, 180L, M182, C183, C185, CM186, CM187, 199 (8 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.

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.

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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.
Upper-Division Courses

100. Bioengineering Fundamentals. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Mathematics 2A, Physics 7A. Fundamental basis for analysis and design of biologic 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.


C102. Human Physiological Systems for Bioengineering I. (4) Formerly numbered CM102.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiological Science 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 aspect of biological system included. Actual demonstration of biomedical instruments, as well as visits to biomedical facilities. Concurrently scheduled with course C202. Letter grading.

C104. Physical Chemistry of Biomacromolecules. (4) Lecture, three hours; discussion, two hours; outside study, four hours. Enforced requisites: Chemistry 20B, 30A, Life Sciences 7A. To understand biological materials and design synthetic replacements, it is imperative to understand their physical chemistry. Biomacromolecules have structural integrity and are conformed and characterized by applying fundamentals of polymer physical chemistry. Investigation of polymer structure and conformation, bulk and solution thermodynamics and phase behavior, polymer networks, and viscoelasticity. Application of engineering principles to problems involving biomacromolecules such as protein conformation, solvation of charged species, and separation and characterization of biomacromolecules. 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 20B, 20L. Highly recommended: one organic chemistry course. Bioconjugate chemistry is science of coupling biomolecules for wide range of applications. Oligonucleotides may be coupled to one surface in gene chip, or one protein may be coupled to one polymer to enhance its stability in serum. Wide variety of bioconjugates are used in delivery of pharmaceuticals, in sensors, in medical diagnostics, and in tissue engineering. Basic concepts of chemical ligation, including choice and design of conjugate linkers depending on type of biomolecule and desired application, such as degradable versus non-degradable linkers. Present state discussion of design and synthesis of synthetic bioconjugates for some sample applications. Concurrently 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 20B, Life Sciences 7A. Materials 33B, Physics 1C. Coverage in depth of physical processes associated with biological membranes and their applications, with specific emphasis on electrophysiology. Basic physical principles governing electrostatics in dielectric media, building on complexity to ultimately address action potential and signal transduction. Topics include Nernst/Planck and Poisson/Boltzmann equations, Nernst potential, Donnan equilibrium, GHK equations, energy barriers in ion channels, cable equations, action potentials, and nerve excitability. Prerequisites: concurrently scheduled with course C206. Letter grading.

C107. Polymer Chemistry for Bioengineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course C104 or C105. Fundamental concepts of polymer synthesis, including step-growth, chain-growth (ion-radical, metal-mediated), and ring-opening, with focus on factors that can be used to control chain length, chain length distribution, and chain-end functionality, chain copolymerization and stereoregularizations. Presentation of applications of use of different polymerization techniques. Concepts of step-growth, chain-growth, ring-opening, and coordination polymerization and the effect on polymer properties. Lectures include both theory and practical issues demonstrated through examples. Concurrently scheduled with course C207. Letter grading.

110. Biotransport 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 biochemical reactions with particular applications to biotechnological and bioengineering disciplines, including cells, tissues, organs, human body, extracorporeal devices, tissue engineering systems, and bioartificial organs. Introduction to pharmacokinetic analysis. Letter grading.

120. Biomedical Transducers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 30A, Electrical Engineering 100, Mathematics 32B, Physics 1C. Principles of transduction, design characteristics for different measurements, reliability and performance characteristics, and data processing and recording. Emphasis on silicon-based microfabricated and nanofabricated sensors and actuators, aspects of signal transduction, and basic signal processing. Prerequisites: currently scheduled with course C201. Letter grading.

121. Introduction to Microcontrollers. (4) Lecture, one hour; discussion, one hour; laboratory, three hours. Requisites: Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20 or Mechanical and Aerospace Engineering M20 or Computer Science 31, and Electrical and Computer Engineering 100, or equivalent. Project-based hands-on introduction to basic and advanced concepts involved in development of projects using microcontrollers for projects in robotics and motion, light and sound, sensing and data acquisition, signal amplification and filtering, communication with specialized integrated circuits, and computer interface using Java-based processing language. Uses of Arduino platform to control digital and analog input/output, SPI and I2C, interrupts, timing, use and writing of software libraries, and other advanced topics. Students construct and analyze first-order passive filters, operational amplifiers (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 and theory components. Includes final design project. Letter grading.

C131. Nanopore Sensing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 100, 120, Life Sciences 7A. Physics 1C. Application of nanopore-based measurements of fluctuating ionic conductance through artificial or protein nanopores. Physics of pore conductance. Applications to single molecule detection and DNA sequencing. Review of current literature and technological applications. History and instrumentation of resistive pulse sensing, theory and instrumentation of electrical measurements in electrolytes, nanopore fabrication, ionic conductance through pores and GHK equation, patch clamp and signal separation, channel measurement, noise, protein engineering, molecular sensing, DNA sequencing, membrane engineering, and future directions of field. Concurrently scheduled with course C131. Letter grading.

C139A. Biomaterials Materials Science I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Overview of chemical and physical foundations of biomaterials. Introduction to materials aspects of molecular biology, cell biology, and bioengineering. Understanding of different types of interfaces that exist between biomolecules, such as van der Waals interactions, entropically modulated interactions in polymer solutions, hydration and solvation interactions, polymer-mediated interactions, depletion interactions, molecular recognition, and others. Illustration of these ideas using examples from bioengineering and biomedical engineering. Students should be able to make simple calculations and estimates that allow them to engage in informed discussions with professionals such as other engineers, researchers, and scientists in fields such as those in drug and gene delivery and tissue engineering. May be taken independently for credit. Concurrently scheduled with course C239A. Letter grade.

C139B. Biomaterials Materials Science II, (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Course C139A is not requisite to C139B. Overview of chemical and physical foundations of biomaterials. Introduction to materials aspects of molecular biology, cell biology, and bioengineering. Understanding of different basic types of biomaterials, with emphasis on nucleic acids, proteins, and lipids. Study of how biological and biomimetic systems organize into their functional forms via self-assembly and how these structures impart biological function. Illustration of these ideas using examples from bioengineering and biomedical engineering. Case study on current topics, including drug delivery, gene therapy, cancer therapeutics, emerging pathogens, and relation of self-assembly to disease states. May be taken independently for credit. Concurrently scheduled with course C239B. Letter grade.

CM140. Introduction to Biomechanics. (4) (Same as Mechanical and Aerospace Engineering CM140.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mathematics 33B. Introduction to biomechanics. Material and technological applications. History and instrumentation of resistive pulse sensing, theory and instrumentation of electrical measurements in electrolytes, nanopore fabrication, ionic conductance through pores and GHK equation, patch clamp and signal separation, channel measurement, noise, protein engineering, molecular sensing, DNA sequencing, membrane engineering, and future directions of field. Concurrently scheduled with course C140. Letter grade.

CM145. Molecular Biotechnology for Engineers. (4) (Same as Chemical Engineering CM145.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: Chemical Engineering 45. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, molecular research tools, manipulation of gene expression, nucleic acids and proteins, diagnostic and 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 CM245. Letter grading.

C147. Applied Tissue Engineering: Clinical and Industrial Perspective. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: course CM102, 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 tissue engineering, cell culture, FDA approval processes, and physical/chemical and biological testing. Case studies include skin and artifical skin, bone and cartilage, blood vessels, neuro-tissue engineering, and liver, kidney, and other organs.

C155. Introduction to Nanoscale Manufacturing. (4) (Same as Chemical Engineering M153, Electrical and Computer Engineering M153, and Mechanical and Aerospace Engineering M138B.) Lecture, three hours; laboratory, four hours; outside study, five hours. Enforced requisites: Chemistry 20A, Physics 1A, 1B, 1C, 4AL. Introduction to general manufacturing methods, mechanisms, constraints, and microfabrication. Focus is 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. Hands-on experience for fabricating microstructures and nanostructures in modern clean-room environment. Letter grading.

C165W. Fluid Mechanics and Fluid-Structure Interactions in Microflows. (4) Lecture, four hours; laboratory, one hour; outside study, seven hours. Enforced requisite: course 110. Introduction to Navier/Stokes equations, boundary conditions, and specifications. Analytical and numerical 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 flow around particles, phase change and without finite inertia and implications for particle-particle interactions. Secondary flows induced by structures and particles in confined flows. Particle separation and sedimentation by forces: flexion, inertia, filtration, focusing, structure-induced separations. Application concepts in internal biological flows and separations for biotechnology. Helps students become confident of fluid mechanics vocabulary and techniques, design and model microfluidic systems to manipulate fluids, cells, and particles, and develop strong intuition for how fluids and particles behave in microfluidic devices that use 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 professionals have ethical rules and duties derived from moral theory. Bioethics is well-established discipline that addresses ethical problems about life, such as when do fertilized eggs become people? Should ending of life ever be assisted? At what cost should it be maintained? Does benefit of committing to building devices out from molecules to bridges, such as when do concerns about risk outweigh concerns about cost? When are weapons too dangerous to design? 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 environment. Satisfies engineering writing requirement. Letter grading.

167L. Bioengineering Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisite: course 110. Laboratory experiments in fluorescence microscopy, bioconjugation, soft lithography, and cell culture culminate in design of engineered surface for cell growth. Introduction to techniques used in laboratories and their underlying physical or chemical properties. Case studies connect laboratory techniques to current biomedical engineering research and reinforce experimental design skills. Letter grading.

C175. Machine Learning and Data-Driven Modeling in Bioengineering. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisites: Civil Engineering M20 or Mechanical and Aerospace Engineering M20. Introduction to scientific computing with MATLAB. Overview of foundational 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. Concurrently scheduled with course C275. Letter grading.

176. Principles of Biofabricatability. (4) Lecture, four hours; discussion, six hours; outside study, six hours. Enforced requisites: course 100, Mathematics 33B, Physic 1C. Biofabricatability at systemic, tissue, cellular, and molecular levels. Biomechanical compatibilities and functionalities. Exploration of engineering methods to address current problems in medicine and biology. Souring and ordering of materials and supplies relevant to student projects. Exploration of different experimental and computational methods. Scientific presentation and oral presentation. Letter grading.

177A. Bioengineering Capstone Design I. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisite: course 167L. Lectures, seminars, and discussions on aspects of bioengineering design. Concurrent work on an engineering project emphasizing such topics as need finding, intellectual property, entrepreneurship, regulation, and project management. Working in teams, students develop innovative solutions to address current problems in medicine and biology. Students conduct directed experiments and computational modeling, give oral presentations, write reports, and participate in bioengineering design competition. Letter grading.

CM178. Introduction to Biomaterials. (4) (Same as Materials Science CM180.) Lecture, three hours; discussion, two hours; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, and 20L, or Materials Science and Engineering 110. Introduction to material science and design, emphasizing such topics as need finding, intellectual property, and science advising. Letter grading.

C179. Biomaterials-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Enforced requisite: course CM178. In-depth exploration of host cellular response to biomaterials; vascular response, interface, and clotting, biocompatibility, animal models, inflammation, infection, extracellular matrix, cell adhesion, and roles of mechanical forces. Concurrently scheduled with course C279. Letter grading.


180L. System Integration in Biology, Engineering, and Medicine I. Lab, one hour; lecture, four hours; hands-on laboratory, four hours; clinical visits, four hours; outside study, three hours. Corequisite: course 180L. Hands-on experimentation and clinical applications of selected medical therapeutic devices associated with cardiovascular and pulmonary disorders. Letter grading.

M162. Dynamic Biosystem Modeling and Simulation Methodology. (4) (Same as Computer Science M182.) Lecture, four hours; discussion, one hour; laboratory, two hours; outside study, five hours. Enforced requisites: Life Sciences 30A and 30B, or Mathematics 3A and 3B or 31A and 31B. Corequisite or prerequisite: 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 biological systems. Basic methodology for transforming biology, biochemistry, and physiology into system diagrams, graphs, and mathematical expressions or computer models. Structural models, formulated from basic conservation and mass action laws and feedback concepts, are further transformed into first-order differential equations, and implemented in simulation diagrams for understanding and exploring biosystem 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 experimentation.

C183. Targeted Drug Delivery and Controlled Drug Release. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Enforced requisites: Chemistry 20A and 20L. Requires comprehensive understanding of modern biology, physiology, biometrics, and engineering. Targeted delivery of drugs and their controlled release are important in treatment of challenging diseases and relevant to future engineering of medicine. Drug pharmacodynamics and clinical pharmacokinetics. Application of engineering principles (diffusion, transport, kinetics) to design delivery 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 of materials and physical presentation of devices and compounds used in delivery and release. Concurrently scheduled with C278. 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, four hours. Enforced requisites: course from Civil Engineering M20, Computer Science 31, 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 computational and systems modeling and computation in bio- and medical biology, providing motivation, flavor, culture, and cutting-edge contributions in computational biology and aiming a mathematical basis for focused studies by students with computational and systems biology interests. Presentations by individual UCLA researchers discussing their active computations and systems biology fields. Letter grading.


CM186. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Computational and Systems Biology M186, Computer Science CM186, and Ecology and Evolutionary Biology M178.) Lecture, four hours; laboratory, two hours; discussion, one hour. Enforced requisites: Life Sciences 30A and 30B, or Mathematics 3A and 3B or 31A and 31B, 32A or M32T, 33A, and 33B. Dynamic systems modeling and computer simulation methods for studying biological systems and processes and systems at multiple levels of organization. Intermediate linear and nonlinear control system, multi-compartmental, epidemiological, pharmacokinetic, and other bioengineering methods applicable to life sciences problems at molecular, cellular, organ, and pop-
188.BSA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188BSB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic. Concurrently scheduled with course faculty mentor. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188BSB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188BSA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic. Concurrently scheduled with course faculty mentor. Individual contract with faculty mentor required. May not be repeated. 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 Research: Bioengineering. (2 to 9) 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 a new advisor. Individual contract required; enrollment petition available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses


C204. Physical Chemistry of Biomacromolecules. (4) Lecture, three hours; discussion, two hours; laboratory, one hour; outside study, seven hours. Enforced requisites: Mathematics 20B, 30A, Life Sciences 7A. To understand biological materials and design synthetic replacements, it is imperative to understand their physical chemistry. Bio- macromolecules are mostly polymeric in nature, being lyzed and characterized by applying fundamentals of polymer physical chemistry. Investigation of polymer structure and conformation, bulk and solution thermodynamics, and phase behavior, polymer networks, and viscoelasticity. Application of engineering principles to problems involving biomacromolecules such as protein conformation, solvation of charged species, and separation of charged biomolecules. Numerical simulation, optimization, and parameter identifiability and search algorithms, with model analysis. Numerical simulation, optimization, and parameter identifiability and search algorithms, with model analysis. Simulation of signal processing approaches. Discussion of signal subspace methods, correlation and independence, principal component analysis, and independent component analysis. Is the best method for signal separation? Application in medical and signal processing. Development of geometric and informatics intuitions behind mathematics and statistics. Light derivations and MATLAB programming. S/U or letter grading.

C214A. Digital Speech Processing. (4) Same as Electrical and Computer Engineering M214A. Lecture, three hours; laboratory, two hours; outside study, seven hours. Enforced requisite: Chemical Engineering 101C. Use of previously learned concepts of biophysical chemistry, thermodynamics, physiology, phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of biological reactors. Letter grading.

C217. Biomedical Imaging. (4) Same as Chemical Engineering M217. Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: 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 Biomedical Engineering M219. Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Electrical and Computer Engineering 114 or 211A. Optical imaging modalities in biomedicine. Other nonoptical imaging modalities discussed briefly for comparison purposes. Letter grading.

C220. Introduction to Medical Informatics. (4) 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 research efforts, and future directions in research. Key issues in medical informatics to expose students to current application domains. Overview of information system architectures, data and process modeling, information extraction and representations, information retrieval and visualization, health services research, telemedicine. Emphasis on medical informatics research endeavors and applications. S/U grading.


260 / Bioengineering
toward nonphysicians who require more formal understanding of human anatomy/physiology. Letter grading.

223A-223B. 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 abstraction techniques used in image processing and medical information system infrastructures. Letter grading. 223A. Requirements: course 31, 3E, Program Computing 20A, 20B. Course 223A is required at least at the level of course 223B, which is requisite to 223C. Integrated with topics presented in course M227 to reinforce concepts presented with practical experience. Projects focus on understanding medical networking issues and implementation of basic protocols for healthcare environment, with emphasis on use of DICOM. Introduction to basic tools and methods used within informatics. Letter grading. 223B. Requisite: course 223A. Integrated with topics presented in courses 223A, M227, and M228 to reinforce concepts presented with practical experience. Projects focus on medical image manipulation and decision support systems. 223C. Requisite: course 223B. Exposure to programming concepts for medical applications, with focus on basic abstraction techniques used in medical text and imaging data and visualize results. Integrated with topics presented in courses 224B and 226B to reinforce concepts presented with practical experiences presented in medical information retrieval, knowledge representation, and visualization.

224A. Physics and Informatics of Medical Imaging. (4) Lecture, four hours; laboratory, eight hours. Requisites: Mathematics 33A, 33B. Designed for graduate students. Introduction to principles of medical imaging and imaging informatics for nonphysicists. Overview of core imaging modalities: X-ray, computed tomography (CT), and magnetic resonance (MR). Topics include image representation and visualization, image analysis techniques such as Markov random fields, spatial characterization (atlas), denoising, energy representations, and clinical imaging work environment. Provides a basic understanding of issues related to basic medical image acquisition and analysis. Current research efforts with focus on clinical applications and new types of information made available through these modalities. Letter grading.

224B. Advances in Imaging Informatics. (4) Lecture, four hours; outside study, eight hours. Overview of informatics-based applications of medical imaging with focus on current trends and advances in technology, including heavy image retrieval, computer-aided detection/diagnosis, and imaging genomics. Introduction to core concepts in information retrieval (IR), reviewing seminal papers on evaluating IR systems and their use in medicine (e.g., teaching files, case-based retrieval, etc.). Examination of specific techniques for image feature extraction, pre-processing, feature selection, indexing and querying, and classification (machine/deep learning). Survey of clinical applications of these techniques and ongoing challenges. Letter grading.

M225. Bioseparations and Bioprocess Engineering. (4) (Same as Chemical Engineering CM225.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced corequisite: Chemical Engineering 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 that are products of living cells. Letter grading.

M226. Medical Knowledge Representation. (4) (Same as Information Studies M253S.) Seminar, four hours; outside study, eight hours. Designed for graduate students. Issues related to medical knowledge representation and reasoning in healthcare applications. Topics include data structures used for representing knowledge (conceptual graphs, frame-based models), different data models for representing knowledge (conceptual graphs, frame-based models), different data models for representing knowledge (conceptual graphs, frame-based models), and linking. Importantly, medical knowledge representation and reasoning is necessary to organize into their functional forms via rules and decision support systems. Letter grading. 227. Medical Decision Making. (4) (Same as Informatics Studies M252S.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Introduction to decision support systems, with focus on various advances in field, such as van der Waals interactions, entropically modulated electrostatic interactions, hydrodynamic interactions, hydration and solvation interactions, polymer-mediated interactions, and molecular recognition, and others. Use of these ideas using examples from bioengineering and biomedical engineering. Letter grading. 228. Medical Informatics and Information-Driven Decision Making Software. (4) (Same as Information Studies M255.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Introduction to common statistical and decision-making software packages to familiarize students with current tools. Letter grading.

M229. Advanced Topics in Magnetic Resonance Imaging. (4) (Same as Physics and Biology in Medicine M229.) Lecture, four hours. Requisite: course M101. Designed for graduate students in pursuing research related to development or translation of new magnetic resonance imaging (MRI) techniques. Basic tools and understanding of recent MRI developments that have had high impact 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 Fourier imaging, RF pulse design, rapid image acquisition, parallel imaging, compressed sensing, image reconstruction and processing, motion encoding and compensation, chemical shift, and phase correction. Letter grading.

C231. Nanopore Sensing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 100, 120, Life Sciences 7A, Physics 1A, 1B, 1C, Analysis of sensors based on measurements of fluctuating ionic conductance through artificial or protein nanopores. Physics of pore conductance. Applications to single molecule detection and DNA sequencing. Review of current literature and technologies. History and instrumentation of resistive pulse sensing, theory and instrumentation of electrical measurements in electrolytes, nanopore fabrication, ionic conductance through nanochannels, and GHK equation, patch clamp and single channel measurements and instrumentation, noise issues, protein engineering, molecular sensing, DNA sequencing, membrane engineering, and future directions of field. Concurrently scheduled with course C231. Letter grading.

M233A. Medtech Innovation I: Entrepreneurial Opportunities in Medical Technology. (4) (Same as Management M271A.) Lecture, three hours; outside study, nine hours. Requisite: course M233A. Designed for graduate and professional students in engineering, dentistry, design, law, management, and medicine. Development of market feasible medtech solutions. Letter grading. M233B. Medtech Innovation II: Prototyping and New Venture Development. (4) (Same as Management M271B.) Lecture, three hours; outside study, nine hours. Requisite: course M233A. Designed for graduate and professional students in engineering, dentistry, design, law, management, and medicine. Development of market feasible medtech solutions. Letter grading. M239A. Biomolecular Materials Science I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Course C239A is not requisite to course C239B. Overview of biochemical and physical foundations of biomolecular materials science that concern materials aspects of molecular biology, cell biology, and bioengineering. Understanding of different basic types of biomolecules, with emphasis on proteins, acids, polypeptides, and lipids. Study of how biological and biomimetic systems organize into their functional forms via self-assembly and how these structures impart biological function. Illustrate the broad spectrum of biological engineering, using examples from bioengineering and biomedical engineering. Letter grading. C239B. Biomolecular Materials Science II. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Concurrently scheduled with course C239A. 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 101, 102, and 156A or 166A. Introduction to mechanical functions 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, one hour; outside study, seven hours. Enforced corequisite: Chemical Engineering 101, 102, and 156A or 166A. Introduction to 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. Letter grading.
C247. Applied Tissue Engineering: Clinical and Industrial Perspective. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: course CM202, Chemistry 20A, 20B, 20L, Life Sciences 7A. Overview of central topics of tissue engineering, with an emphasis of building artificial tissues into regulated clinically viable products. Topics include biomaterials selection, cell source, delivery methods, FDA approval processes, and physical and chemical properties of biological and artificial tissues. Limitations and regulatory challenges in design and development of tissue-engineering devices. Concurrently scheduled with course C147. Letter grading.

C248. Introduction to Biological Imaging. (4) Same as Pharmacology M248 and Physics in Biology in Medicine M248.) Lecture, three hours; laboratory, one hour; outside study, seven hours. Exploration of role of biological imaging in modern biology and medicine, including computational physics, instrumentation, image processing, and applications of imaging for range of modalities. Practical experience provided through series of image analysis laboratory sessions.

C253. Microelectromechanical Systems (MEMS) Fabrication. (4) (Same as Electrical and Computer Engineering M250B and Mechanical and Aerospace Engineering M280B.) Lecture, three hours; discussion, one hour; outside study, seven hours. Enforced prerequisite: course M153. Advanced discussion of micromanufacturing processes used to construct MEMS. Coverage of many lithographic, deposition, and etching processes as well as combination in process integration. Materials issues such as chemical resistance, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.

C252. Microelectromechanical Systems (MEMS) Device Physics. (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 methods, rules, sensing and actuation mechanisms, microsensors, and microactuators. Designing MEMS to be produced with both foundry and nonfoundry processes. Computer-aided design using tools for MEMS. Design project required. Letter grading.


C262. Drug Delivery Devices: Innovation and Translation. (4) Lecture, four hours; outside study, eight hours. Introduction to modern topics in drug delivery devices and relevant biomedical applications. Topics provide comprehensive examination of current and emerging research and development on drug delivery devices, with emphasis on innovation and translation. Topics include biorepository drug delivery systems, drug delivery devices, clinical trials, reservoirs, MDDSs, 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 for drug delivery mediated by devices in effective and safe manner, from system 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.

C2560. Neuroengineering. (4) (Same as Electrical and Computer Engineering M2560 and Neuroscience M2060.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 32A, Physics 1B or SC. Introduction to principles and techniques of nervous system signal recording, processing, and stimulation. Topics include biocircuitry, electrophysiology (action potentials, local field potentials, EEG, ECoG), intracellular and extracellular recording, microelectrode, 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.


C2563. Anatomy of Central Nervous System. (4) (Same as Neuroscience M250S.) Lecture, seven hours; discussion, three hours; outside study, four hours. Critical discussion and analysis of current literature related to need to understand neural circuitry. Letter grading.

C2567. Micro- and Nanoscale Biosensing for Molecular Diagnostics. (4) (Same as Electrical and Computer Engineering M2575.) Lecture, four hours; discussion, one hour; outside study, seven hours. Covers state-of-art and emerging biosensors in context of molecular diagnostics. Students learn relevant biophysical concepts for measurement and data processing, an emphasis on instrumentation and core development and design of biosensors. Students learn useful techniques for data analysis of sensors and systems. Students gain thorough understanding of interfaces between bioparticles, biofluids, and electronics. Topics include biosensor performance parameters, immunosensors, optical biosensors, surface plasmon resonance, fields and flows, electrochemical sensors, microfluidics, and emerging wearable biosensing platforms, as well as proteomics, genomics, and DNA sequencing technologies. Letter grading.

C2573. Machine Learning and Data-Driven Modeling in Biomechanical Engineering. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Requisites: Civil 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 biomechanics, focusing on how these techniques can be applied to interpret experimental observations. Topics include probability, statistics, data analysis, machine learning, and interpretation. Focus in data decision making in health/fitness and in healthcare applications. Lab of variance, reproducible computational workflows, dimensionality reduction, regression, hidden Markov models, and clustering. Students gain theoretical and practical knowledge of data analysis and machine-learning methods relevant to biomechanics. Application of these methods to experimental data from biomechanical engineering studies. Students become sufficiently familiar with machine learning to be able to incorporate such analyses, execute analysis, and work in teams using similar approaches, and ensure correctness of their results. Concurrently scheduled with course CM258. Letter grading.

C2578. Introduction to Biomaterials. (4) (Same as Materials Science CM280.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, and 20L, or Materials Science 104. Engineering materials used in medicine and dentistry for repair and/or restoration of damaged natural tissues. Topics include relationships between material properties, suitability to task, surface chemistry, processing and treatment methods, and biocompatibility. Concurrently scheduled with course CM178. Letter grading.

C279. Biomaterials-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Requisites: course CM278. In-depth exploration of host cellular responses to biomaterials and their interface, and clotting, biocompatibility, animal models, inflammation, infection, extracellular matrix, cell adhesion, and role of extracellular matrix. Concurrently scheduled with course C179. Letter grading.

C281. Advanced Bioconjugate Design and Methods. (4) Lecture, four hours; outside study, eight hours. Requisites: course CM205. Builds upon basic concepts of chemical ligation covered in course CM205, 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 bioengineering. Students gain deep understanding of principles of bioconjugation: coupling of biologically active molecules to substrates, devices, or other materials, especially for applications in living cells and in vivo. Letter grading.


C284. 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 functional magnetic resonance imaging, data acquisition and analysis, experimental design, and results obtained thus far in human systems. Strong focus on understanding technologies, how to design activation imaging clinical, and development of novel functional MRI systems. S/U or letter grading.

C287. Introduction to Tissue Engineering. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: courses CM202, CM205, and CM206. Tissue engineering approach to regenerate tissues and organs. Understanding technologies, how to design activation imaging, and animal models. Technologies, how to design activation imaging, and animal models. Materials science, cell and tissue behavior, and development of new techniques and methods. Concurrently scheduled with course CM286. Letter grading.

C289. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Computer Science CM286.) Lecture, four hours; laboratory, two hours; discussion, one hour. Requisites:
Bioinformatics / 263

599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate bioengineering students. Usually taken after students have been advanced to candidacy. S/U grading.

BioINFORMATICS
Interdepartmental Program
College of Letters and Science
172 Boyer Hall
Box 951570
Los Angeles, CA 90095-1570
Bioinformatics
310-825-0068
Program e-mail
Xinchu Grace Xiao, PhD, Chair

Faculty Committee
Alex A.T. Bui, PhD (Radiological Sciences)
Hillary A. Collier, PhD (Biological Chemistry; Molecular, Cell, and Developmental Biology)
Jason Ernst, PhD (Biological Chemistry, Computational Medicine, Computer Science)
Eleazar Eskin, PhD (Computational Medicine, Computer Science, Human Genetics)
Alexander Hoffmann, PhD (Microbiology, Immunology, and Molecular Genetics)
Leonid Kruglyak, PhD (Biological Chemistry, Human Genetics)
Jingyi Jessica Li, PhD (Statistics)
Pavli E. Pajukanta, MD, PhD (Human Genetics)
Bogdan Pasianuc, PhD (Computational Medicine, Human Genetics, Pathology and Laboratory Medicine)
Matteo Pellegrini, PhD (#Human Genetics; Molecular, Cell, and Developmental Biology)
Xinchu Grace Xiao, PhD (Computative Medicine and Physiology)
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 connection 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 enter into any of the following fields:

1. Academic positions in bioinformatics
2. Research positions in industry
3. Consulting positions in the biotech sector
4. Administrative roles in government agencies
5. Teaching positions at universities

In addition to these traditional career paths, bioinformatics graduates may also find opportunities in fields such as computational biology, genomics, and systems biology. The demand for bioinformatics expertise continues to grow as the sequencing of the human genome and other organisms becomes more widespread.

Bioinformatics is a rapidly evolving field that requires a blend of skills from biology, computer science, statistics, and mathematics. By studying at UCLA, students can gain a comprehensive understanding of the tools and techniques used to analyze complex biological data, preparing them for a variety of careers in academia, industry, and government.
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

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 computer biology through presentation of current research literature. How to select and apply methodologies and mathematical and statistical 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.

M222. Introduction to Bioinformatics. (4) (Same as Chemistry CM260A, Computer Science CM221, and Human Genetics M260A.) Lecture, four hours; discussion, two hours. Required: Computer Science 32 or Program in Computing 10C with grade of C– or better, and one course from Bioinformatics 100A, Civil Engineering 110, Electrical Engineering 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.

M222. Algorithms in Bioinformatics. (4) (Same as Chemistry CM260B and Computer Science CM222.) Lecture, four hours; discussion, two hours. Required: Computer Science 32 or Program in Computing 10C with grade of C– or better, and one course from Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Course M221 is not required to M222. Designed for engineering students as well as students from biological sciences and medical school. Development and application of computational approaches to biological problems, with focus on formulating interdisciplinary problems as computational problems and then solving these problems using algorithmic techniques. Computational techniques include those from statistics and computer science. Letter grading.

M223. Statistical Methods in Computational Biology. (4) (Same as Biostatistics 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 biological problems. Letter grading.

M224. Machine Learning Applications in Genetics. (4) (Same as Computer Science CM224 and Human Genetics CM222.) Lecture, four hours; discussion, two hours; outside study, six hours. Required: 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. Introduction to computational analysis of genetic variation and computational interdisciplinary research in genetics. Topics include introduction to genetic databases, genes involved in diseases, 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 M226.) 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 genetics and genomics. Topics include genome analysis, regulatory genomics, 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 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. Recommended: one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical 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 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 applications to key biological questions. Letter grading.

275A. Applied Bioinformatics Lab for Biologists: Fundamentals. (2) Laboratory, six hours (five weeks). Introduction to contemporary methods and techniques in bioinformatics that are used to analyze high-throughput genomic data. Topics include introduction to UNIX, Next Generation Sequence (NGS) data analysis, CHIP-seq, BS-seq and RNA-seq, and others. Letter grading.

275B. Applied Bioinformatics Lab for Biologists: Intermediate. (2) Laboratory, six hours (five weeks). Required: course 275A. Contemporary methods and techniques in bioinformatics that are used to analyze high-throughput genomic data. Topics include Galaxy server, R, MATLAB, Python, and variant calling. Letter grading.

296. Seminar: Research Topics in Bioinformatics. (2) Seminar, to be arranged; discussion, three hours. Advanced study and analysis of current research topics in bioinformatics. 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 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 in Bioinformatics. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

597. Preparation for MS Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

598. MS Thesis Research and Writing. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

599. PhD Dissertation Research and Writing. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

BIOLICAL CHEMISTRY

David Geffen School of Medicine

310 Biomedical Sciences Research Building

Box 951737

Los Angeles, CA 90095-1737

Biological Chemistry

310-825-4625

Siavash K. Kurdistani, MD, Chair

Michael F. Carey, PhD, Vice Chair

John J. Colicelli, PhD, Vice Chair

Overview

Biological chemistry has grown to include studies of cellular, molecular, and developmental biology, molecular genetics and genetic engineering, and many aspects of the health sciences. The research activities of the department include these areas as well as the classic topics of metabolism, enzymology, and biomolecular structure. Courses and seminar programs are designed to provide students with the necessary background and approach to encourage their continued growth in these rapidly changing areas of science.

Interaction with other graduate programs provides access to scientists in a variety of related disciplines. Through its primary affiliation with the Geffen School of Medicine, the Department of Biological Chemistry is also involved in the basic education of students who will be physicians, dentists, and other health professionals. Many of these students become involved in laboratory research in the department. In part because of this breadth of experience students find careers in many aspects of basic and applied scientific research and education.

Biological Chemistry faculty information is available from the department.
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 (9 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 sources. Discussion of bias in system producing primary research from undergraduate education through tenured faculty, and medicine and national research 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 cutting-edge research. Topics 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 cutting-edge research. 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. (4–4–4) 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. Part of Undergraduate Research Consortium in Functional Genomics sponsored by Howard Hughes Medical Institute Professors Program. Letter grading.

189HC. Honors Contracts. (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.

189H. 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.

Upper-Division Courses

100HA-100HB-100HC. Advanced Research in Genes, Genetics, and Genomics. (4–4–4) Lecture, two hours; laboratory, 10 hours. Requisite: course 10H. Course 100HA is requisite to 100HB, which is requisite to 100HC. Designed for undergraduates who are committed to pursuing research. Advanced research training in genetics, cell and developmental biology, bioinformatics, functional genomics. Techniques include electron microscopy, other light microscopies, immunohistochemistry. Part of Undergraduate Research Consortium in Functional Genomics sponsored by Howard Hughes Medical Institute Professors Program. 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 required. Honors content noted on transcript. 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.

189H. Honors Contracts. (1) Seminar, 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. 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.

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. Enrollment 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. Culuminating report describing prog-
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, the Master of Public Health (MPH) degree with a specialization in biostatistics (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 Major

Biostatistics MS, PhD

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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. 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.

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. Introduction to Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: one biological or physical sciences course. Suitable for juniors/seniors. Students who have completed courses in statistics may enroll only with consent of instructor. Not open for credit to students with credit for course 110A. Introduction to methods and concepts of statistical analysis. Sampling situations, with special attention to those occurring in biological sciences. Topics include basic inferential procedures, 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. Not open for credit to students with credit for course 110B. Introduction to analysis of variance, linear regression, and correlation analysis. P/NP or letter grading.

197. Individual Studies in Biostatistics. (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 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. Introduction to 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 sciences. Interpretation and communication of statistical findings is stressed. Focus on methodology, applications, and concepts rather than mathematical statistics or probability theory. S/U or letter grading.

200B. Methods in Biostatistics B. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Pre-requisite preparation: courses 200A, 200B, and previous coursework in linear algebra. Designed for students pursuing graduate degrees 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 package STATA to manage, 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 researchers. S/U or letter grading.

200C. Methods in Biostatistics C. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Pre-requisite: preparation: courses 200A, 200B, and previous coursework in linear algebra. 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.

201A. Topics in Applied Regression. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: 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, regression diagnostics and model assessment, factorial and repeated measure analysis of variance models, nonlinear regression, logistic regression, propensity scores, matching versus stratification, Poisson regression, and classification trees. Applications to biomedical and public health scientific problems. Letter grading.

202A-202B. Mathematical Statistics A, B. (4–4) Lecture, three hours; discussion, one hour. Designed primarily for students pursuing DrPH, MS, and PhD degrees in biostatistics. Introduction to main principles of probability, random variables, discrete and continuous distributions, multivariate distributions, and distributions of functions of random variables. S/U or letter grading. 202B. Requisite: course 202A.
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 SSTAT provided. Letter grading.


255A. Advanced Probability and Statistics. (4) Lecture, three hours; discussion, one hour. Requisites: course 202A 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 255A or consent of instructor, Mathematics 131A. Other courses 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 in biostatistics. S/U or letter grading.


M272. Theoretical Genetic Modeling. (4) Same as Biometrics M207A and Human Genetics M207A.) 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, three hours. Requisites: course 200C and Mathematics 115A. Covers the central underlying themes and practical applications of modern machine-learning and other data-intensive algorithms, including support vector machines and random forest algorithms. Students learn to develop or use software tools that are available for free on web. S/U or letter grading.


275. Advanced Survival Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 250A, 250B. 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 Biostatistics M210 through 219 or 270 through 276 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, two hours. Teaching apprentice under active supervision and guidance of regular faculty member responsible for curriculum and instruction at UCLA. Apprentices meet with faculty and other apprentices. Emphasis on teaching the substance of curricula and appropriate approaches to teaching, learning, and evaluation. May be repeated for credit. S/U 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 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. Letter grading.

402A. Principles of Biostatistical Consulting. (2) Lecture, one hour; discussion, one hour. Requisite: course 100B or 110B. Presentation of structural format for statistical consulting. Role of statistician and client. Revisionist/client interactions and case studies. S/U or 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.

M403B. Computer Management and Analysis of Health Data Using SAS. (4) (Same as Epidemiology M403.) Lecture, two hours; laboratory, two hours. Introduction to 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 analysis for addressing biomedical and health-related hypotheses. Letter grading.

406. 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 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 and 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, one hour. Requisites: course 200A, 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 controls; prognostic factors, survivorship studies, and design of prognostic studies; organization of clinical trials—administration, comparability, protocols, clinical standards, data collection and analysis. 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 models. 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. May be repeated for credit. S/U grading.

415. Field Study in Special Problems. (1) Lecture, to be arranged. Enforced requisites: courses 110A, 110B, 400, 402A. Students meet weekly with their advisor and also work independently on their proposed project. Course fosters ability 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.

416. 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 total course requirement. May be repeated for credit. S/U grading.

417. Preparation for Master’s Comprehensive or Doctoral Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Limited to advanced students. May not be applied toward any degree course requirement. May be repeated for credit. S/U grading.
Across the lifespan, the Brain and Behavioral Health minor offers students the opportunity to learn about how to apply scientific advances 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, 192CX, Physiological Sciences 140, Psychiatry 174 or 176 (whichever course was not applied above), 175, M182, Psychology 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 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.

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.

Faculty Committee
Robert M. Bilder, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
Christopher S. Colwell, PhD (Psychiatry and Biobehavioral Sciences)
Christopher J. Evans, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
Adriana Galván, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
Andrew J. Fuligni, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
Christina G.S. Palmer, PhD (Human Genetics, Psychiatry and Biobehavioral Sciences, Society and Genetics)
Taras S. Peris, PhD (Psychiatry and Biobehavioral Sciences)

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 metabolic engineering, protein engineering, synthetic biology, bio-nanotechnology, biomaterials, air pollution, environmental modeling, pollution prevention, molecular simulation, process systems engineering, membrane science, semiconductor processing, chemical vapor deposition, plasma processing, and polymer engineering.

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 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 biomedical engineering, especially to integration of molecular- to micro-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

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, 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 biomolecular 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 adviser).

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; 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.

Environmental 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; 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 113, C11B, C119, C121, C128, C135, C140 (another chemical engineering elective may be substituted with approval of the faculty adviser).

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Semiconductor Manufacturing 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 elective course (4 units) from chemical engineering or from Materials Science and Engineering 104, 120, 121, 122, or 150.
Graduate Major
Chemical Engineering MS, PhD

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 (C02 cycles), atmospheric oxygen depletion (chlorine and ozone cycles), and global nitrogen cycles. Flow of materials in industrial economies compared and contrasted with natural flows; presentation of lifecycle methods for evaluating environmental impact of processes and products. P/NP or letter grading.

10. Introduction to Chemical and Biomolecular Engineering. (1)
Lecture, one hour; outside study, two hours. General introduction to field of chemical and biomolecular engineering. Description of how chemical and biomolecular engineering analysis and design skills are applied for creative solution of current technological problems in production of microelectronic devices, design of chemical plants for minimum environmental impact, application of nanotechnology to chemical sensing, and genetic-level design of recombinant microbes for chemical synthesis. 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.

45. Biomolecular Engineering Fundamentals. (4)
Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended requisites: Chemistry 20A, 20L, 30A, 30L. Intended for those students who have not taken Life Sciences 2, 3, and Chemistry 153A. Fundamentals of modern biomolecular engineering. Topics include structure and function of biomolecules, central dogma of molecular biology, cellular information and energy processing, and 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 Biomolecular Engineering. (4)
Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20B, 20L (not enforced), Mathematics 32B (may be taken concurrently). Physics 1A, Introduction to analysis and design of industrial 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. Specific examples of mass-specified transport, Fick law of diffusion, diffusion in chemically reacting flows, interphase mass transfer, multi-component 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: Mathematics 33A, 33B. Application of principles of heat, mass, and momentum transport 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 100. Enforced corequisite: 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 of experimental apparatus, experimental design, data collection, and error analysis. Additional experiments on transport involving separation, or another aspect of chemical and biomolecular engineering. Basic statistics; mean, standard deviation, 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 poster presentations of original laboratory experiments and sections of technical reports and their contents; writing clearly, concisely, and consistently; importance of word choices and punctuation in multicultural engineering environment and of following required formatting. Letter grading.

104B. Chemical and Biomolecular Engineering Laboratory II. (4)
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 operations, each of two weeks duration. Students present their results both written and orally. Written report includes sections 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 104CL. Basic engineering principles of semiconductor unit operations, including fabrication and characterization of semiconductor devices. Investigation of processing steps used to make CMOS devices, including wafer cleaning, oxidation, diffusion, lithography, chemical vapor deposition, plasma etching, metallization, and electrical testing of devices. Letter grading.

104CL. Semiconductor Processing Laboratory. (3)
Laboratory, four hours; outside study, five hours. Enforced requisite: course 101C. Enforced corequisite: course 104C. Series of experiments that emphasize basic engineering principles of semiconductor unit operations, including fabrication and characterization of semiconductor devices. Investigation of processing steps used to make CMOS devices, including wafer cleaning, oxidation, diffusion, lithography, chemical vapor deposition, plasma etching, and metallization. Hands-on device testing includes transistors, diodes, and capacitors. Letter grading.

104D. Molecular Biotechnology Laboratory: From Gene to Product. (6)
Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 101C, 125. Introduction to fundamentals of and start-up behavior of chemical engineering processes. Chemical process control elements. Design and applications of chemical process computer control systems. Letter grading.

106. Chemical Reaction Engineering. (4)
Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 100, 101C, 102B. Fundamentals of chemical kinetics and catalysis. Introduction to factorial design of experiments. Kinetics of chemical and biological reactions. 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), 104A, 106 (or C115). Introduction to chemical and biological process modeling and control. Introduction to factorial design of chemical process computer control systems. Letter grading.

108A. Process Economics and Analysis. (4)
Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: courses 103 (or C125), 104A, 106 (or C115). Integration of chemical engineering fundamentals with phe- nomena, 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 20 (or Aerospace Engineering M20). Introduction to application of some mathematical and computing methods to design of chemical processes. 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 104A. Numerical methods for computation of solution of systems or linear and nonlinear algebraic equations, ordinary differential equations, and partial equations. Letter grading.

110. Numerical and Mathematical Methods in Chemical and Biological Engineering. (4)
Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20. Introduction to application of some mathematical and computing methods to design of chemical processes. Letter grading.

C112. Polymer Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 101A, Chemistry 30A. Formation of polymeric materials, including polymerization reaction scheme, polymerization techniques, polymer characterization, Mechanical properties, Rheology of macromolecules, polymer process engineering, Diffusion in polymeric systems, polymer blending, introduction to biotechnological applications and microelectronics. Concurrently scheduled with course C212. Letter grading.

113. 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, control, environmental legislation, and design of air quality to enable sources. Links air pollution to multimedia environmental assessment. Letter grading.

CM114. Electrochemical Processes. (4) (Formerly numbered C114.) (Same as Materials Science CM163.) 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 electrochemical reactions and their applications to industrial and chemical processes. Primary emphasis on fundamental approach to analyze electrochemical processes. Specific topics include electrochemical reaction rates, electrode kinetics, double-layer capacitance, electrodeposition, electrocatalysis, electrochemistry of fuel cells, aqueous and non-aqueous batteries, solid-state electrochemistry. May be concurrently scheduled with course C214.

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 surfaces and interfaces of engineering materials, catalytic surfaces, thin films 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 their interactions and examination of engineering applications, including catalytic surfaces, interfaces in microelectronics, and solid-state laser. May be concurrently scheduled with course C216. 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, 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 membranes of membrane transport and selectivity. Examples provided from various fields/applications, including biotechnology, microelectronics, chemical processes, sensors, and biomedical devices. Concurrently scheduled with course C221. Letter grading.

C124. Cell Material Interactions. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 45. Introduction to design and development of engineered products, including catalysis, sensors, and DNA and siRNA delivery as therapeutics and to facilitate tissue regeneration. Use of stem cells in tissue engineering. Concurrently scheduled with course C224. Letter grading.

C125. Bioseparations and Bioprocess Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced corequisite: 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 that are products of biological reactors. Concurrently scheduled with course CM154. Letter grading.

C126. Viruses and Biotechnology. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course CM145. Introduction of virology as the study of viruses, virus utilization of viral enzymes to biotechnological uses to combat viral infectious diseases. Basic concepts of virology, Focus on use of viruses, including bacteriophages, and viral proteins 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 treatment. 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.

CM127. Synthetic Biology for Biofuels. (4) (Same as Chemistry CM127.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: Chemistry 153A. Engineering micromolecular reaction factors for complex phenotype is common goal of metabolic engineering and synthetic biology. Production of advanced biofuels involves designing and constructing new highly productive microorganisms. Research requires profound understanding of biochemistry, protein structure, and biological regulations and are aided by tools in bioinformatics, systems biology, and molecular biology. Fundamentals of metabolic biochemistry, protein structure and function, and bioinformatics. Use of systems modeling for metabolic networks to design microorganisms for energy applications. Concurrently scheduled with course CM227. Letter grading.

C128. Hydrogen. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: Chemistry 20A. Electronic, physical, and chemical properties of hydrogen. Various methods of production, including production through methane steam reforming, electrolysis, and thermochemical cycles. Description in depth of several uses of hydrogen, including hydrogen combustion and hydrogen fuel cells. Concurrently scheduled with course C228. Letter grading.

C135. Advanced Process Control. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 107. Introduction to advanced process control topics. Include (1) Lyapunov stability for autonomous systems including converse theorems, (2) input to state stability, interconnected systems, and small gain theorems, (3) design of nonlinear and robust controllers for various classes of nonlinear systems, (4) model predictive control of linear and nonlinear systems, (5) advanced methods for tuning of classical controllers, and (6) introduction to control of distributed parameter systems. Concurrently scheduled with course C235. Letter grading.

CM145. Molecular Biotechnology for Engineers. (4) (Same as Bioengineering CM145.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 45. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, molecular biological manipulations of gene expression, directed mutagenesis and protein engineering, DNA-based diagnostics and DNA microarrays, antibody and protein-based diagnostics, genetic and personalized medicine, isolation of human genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM245. Letter grading.

M153. Introduction to Microscale and Nanoscale Manufacturing. (4) (Same as Bioengineering M153, Electrical and Computer Engineering M113, and Mechanical and Aerospace Engineering M138B.) Lecture, three hours; laboratory, four hours; outside study, five hours. Enforced requisite: course C2, Physics 1A, 1B, 1C, 4AL. Introduction to general manufacturing methods, mechanisms, constraints, 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 processing methods, and chemical etching methods. Hands-on experience for fabricating microstructures and nanostructures in modern cleanroom environment. Letter grading.

188. Special Courses in Chemical Engineering. (4) Seminar, four hours; outside study, eight hours. Special topics in chemical engineering for undergraduate students taught on experimental or temporary basis, such as those taught by resident and visiting faculty members. May be repeated for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Chemical Engineering. (4) Seminar, four hours; outside study, eight hours. Specialist topics in chemical engineering for undergraduate students taught on experimental or temporary basis, such as those taught by resident and visiting faculty members. May be repeated for credit with topic or instructor change. Letter grading.

199. Directed Research in Chemical Engineering. (2) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation of selected topic under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit with approval. Independent contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

C273. Chemical and Biomolecular Engineering / 273
Graduate Courses

200. Advanced Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requi- site: course 102B. Phenomenological and statistical thermodynamics of chemical and physical systems with emphasis on thermodynamic and kinetic 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; outside study, eight hours. Requ- isite: 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.


C211. Cryogenic and Low-Temperature Process- es. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Fundamentals of cryogenics and cryogenic engineering science pertaining to industrial low-temperature applications. Basic approach to analysis of cryofluids and envelopes needed for oper- ation 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, reaction mechanisms and reaction scheme, poly- merization techniques, polymer characterization. Mechanical properties. Rhoehology of macromolecules, polymer process engineering. Diffusion in polymeric systems. Polymers in biomedical applications and in microelectronics. Concurrently scheduled with course C112. Letter grading.

CM214. Electrochemical Processes. (4) (Formerly numbered C214.) (Same as Materials Science CM263.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 102B, Mechanical and Aerospace Engineering 105A (or Ma- terials Science 105A). Chemical and electrochem- istry and engineering applications to industrial electro- chemical processes. Primary emphasis on funda- mental approach to analyze electrochemical processes, include electronic excitations on metal and semiconductor surfaces, elec- trodeposition, electrophoresis, electrochemistry, fuel cells, aqueous and non-aqueous batteries, solid- state electrochemistry. May be concurrently sched- uled with course CM114. Letter grading.

CM215. Biochemical Reaction Engineering. (4) (Same as Bioengineering M215.) Lecture, four hours; discussion, one hour; outside study, seven hours. En- forced requisite: course 101C. Use of previously learned concepts of biochemical physics, thermody- namics, transport phenomena, and reaction kinetics to develop tools needed for technical design and eco- nomics analysis of industrial processes. May be concurrently scheduled with course C115. 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 sur- faces and interfaces. Examination of engineering ap- plications, including catalytic surfaces, interfaces in microelectronics, and solid-state laser. May be concurrently scheduled with course C116. Letter grading.

C177. Electromechanical Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course C114. Transport phenomena in electrochemical sys- tems; relationships between molecular transport, con- vention, and electrode kinetics, along with applica- tions to industrial electrochemistry, fuel cell design, and modern battery technology. Letter grading.


C220. Advanced Mass Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 101C. Advanced treatment of mass transfer, with applica- tions to industrial separation processes, gas cleaning, pulmonary and biomedical release sys- tems, and reactor design; molecular and constitutive theories of diffusion, interfacial transport, membrane transport, convective mass transfer, concentration boundary layers, transfer coefficients. Letter grading.

C221. Membrane Science and Technology. (4) Lec- ture, four hours; discussion; one hour; outside study, seven hours. Enforced requisites: courses 101A, 101C, 106. Fundamentals of membrane science and technology, with emphasis on separations at micro, nano, and molecular/angstrom scale with membranes. Relationship between structure/opacity of dense and porous membranes, and their physicochemical char- acteristics. Use of nanotechnology for design of selec- tive membranes and models of membrane transport (flux and selectivity). Examples provided from various fields including biotechnology, microelectronics, chemical processes, sensors, and biomed- ical devices. Concurrently scheduled with course C121. Letter grading.


223. Design for Environment. (4) Lecture, four hours; outside study, eight hours. Limited to graduate chem- ical 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 and waste minimization, computer-aided design tools, materials selection methods. Letter grading.


CM225. Biosensorics and Bioprocess Engineer- ing. (4) (Same as Bioengineering M225.) Lecture, four hours; outside study, eight hours. Enforced requisite: course 101C. Separation strategies, unit operations, and economic factors used to design processes for isolating and purifying mate- rial using cell-like biosensors, enzymes, and phar- maceuticals that are products of biological reactors. Concurrently scheduled with course C125. Letter grading.

C226. Viruses and Biotechnology. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course CM145. Introduction of vi- ruses and their varied roles in biotechnology, from uti- lization of viral enzymes to biotechnologies used to combat viral infectious diseases. Basic concepts of vi- rology. Focus on use of viruses, including bacterio- phages, and viral proteins as tools in biotechnology. Examples include bacteriophage display, virus-based nanomaterials, and viral vectors for gene delivery, and vaccines. Covers cases studies of viral diseases and biotechnological strategies for diagnosis, prevention, and treatment. Examples include strategies to immunodif- ficulty virus and coronaviruses. Students conduct lit- erature 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 production of the phenotype is complex engineering and synthetic biology. Production of ad- vanced biofuels involves designing and constructing novel metabolic networks in cells. Such efforts require a profound understanding of how protein structure, and biological regulations and are aided by tools in bioinformatics, systems biology, and mol- ecular biology. Fundamentals of metabolic biochemistry, protein engineering, and synthetic biology. Use of systems modeling for metabolic networks to design microorganisms for energy applications. Con-currently scheduled with course CM127. S/U or letter grading.

C228. Hydrogen. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requi- site: Chemistry 20A. Electronic, physical, and chem- ical properties of hydrogen and proton. Production of hydrogen, including production through methane steam reforming, electrolysis, and thermal chemical cycles. Description in depth of several uses of hydrogen, in- cluding hydrogen combustion and hydrogen fuel cells. Concurrently scheduled with course C128. Letter grading.


233. Frontiers in Biotechnology. (2) Lecture, one hour. Requisite: Life Sciences 3. Integration of science and business in biotechnology. Academic research leading to licensing and founding of companies that turn research breakthroughs into marketable products. Invited lecturers from academia and industry cover emerging areas of biotechnology from combination of science, engineering, and business points of view. S/U or letter grading.

234. Plasma Chemistry and Engineering. (4) Lecture, four hours; outside study, eight hours. Designed for graduate chemistry or engineering students. Application of chemistry, physics, and engineering principles to design, construction, and operation of plasmas and plasma-related reactors used in etching, deposition, oxidation, and cleaning of materials. Examination of atomic, molecular, and ionic phenomena involved in plasma and ion-beam processing of semiconductors, etc. Letter grading.

C235. Advanced Process Control. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 107. Introduction to advanced process control. Topics include (1) Lyapunov stability for autonomous nonlinear systems including converse theorems, (2) input to state stability, linear operators and their spectrum. Minimum distance problems, least squares. Lagrange multipliers, nonlinear duals. Finite dimensional, finite element approximation and analysis of partial differential equations (PDEs). Letter grading.

240. Fundamentals of Aerosol Technology. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 210, CM 215. Aerosol deposition is widely used to deposit thin films that comprise microelectronic devices. Topics include reactor design, transport phenomena, gas and surface chemical kinetics, structure and composition of films, and relationship between process conditions and film properties. Letter grading.

245. Molecular Biotechnology for Engineers. (4) Lecture, four hours; outside study, four hours; discussion, one hour; outside study, seven hours. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry 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 C145. Letter grading.


270. Principles of Reaction and Transport Phenomena. (4) Lecture, four hours; laboratory, eight hours. Fundamentals in transport phenomena, chemical reaction kinetics, and thermodynamics at molecular level. Topics include Boltzmann equation, microscopic chemical kinetics, transition state theory, and statistical analysis. Examination of engineering applications related to various research areas in chemical engineering. Letter grading.

270R. Advanced Research in Semiconductor Manufacturing. (6) Laboratory, six hours; outside study, nine hours. Limited to graduate chemical engineering students in MS/PhD/Manufacturing opt. Supervised research in processing semiconductor materials and 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 (LTV) and time-varying (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 function systems. Introduction to system identification and control of particle formation processes. Concurrently scheduled with course C140. Letter grading.


283C. Analysis and Control of Infinite Dimensional Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course CM280A. Design of feedback control laws for graduate students. Introduction to advanced dynamical analysis and controller synthesis methods for nonlinear infinite dimensional systems. Topics include (1) input to state 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) non-linear and robust control of nonlinear hyperbolic and parabolic partial differential equations (PDEs), (4) applications to transport-reaction processes. Letter grading.


495B. Teaching with Technology for Teaching Assistants. (2) Seminar, two hours; outside study, four hours. Enforced requisite: course 295A. Seminar for teaching assistants four hours. Letter grading.

M297. Seminar: Systems, Dynamics, and Control Topics. (2) Same as Electrical and Computer Engineering M248S 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 to the community. May be repeated for credit with topic change. Letter grading.

Chemical and Biomolecular Engineering / 275
Overview

Chemistry is concerned with the composition, structure, and properties of substances, the transformations of these substances into others by reactions, and the kinds of energy changes that accompany these reactions. The Department of Chemistry and Biochemistry is organized in four interrelated and overlapping disciplines that deal primarily with the chemistry of inorganic substances (inorganic chemistry), the chemistry of carbon compounds (organic chemistry), the chemistry of living systems (biochemistry), and the physical behavior of substances in relation to their structures and chemical properties (physical chemistry). The Chemistry/Materials Science major is designed for students who are interested in the applications of chemistry for the design, synthesis, and study of new materials.

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

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.

Enrolling 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 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, C113B, 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

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

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.

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

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 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 125, C126A, C145, CM160A, CM160B.

Courses need to be completed with a combined grade-point average of at least 2.0. Stu-
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.

**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.

**Preparation for the Major**

Required: Chemistry and Biochemistry 14A (or 14AE) and 14B (or 14AE), 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.

**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.

**The Major**

Required: Chemistry and Biochemistry 110A, 153A, 153B, 153C, 153L, 154, 156; one additional upper-division or graduate course in chemistry and biochemistry; and three elective upper-division or graduate courses (12 units) approved by the undergraduate adviser (Microbiology, Immunology, and Molecular Genetics 101 highly recommended). 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**

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.

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**

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.

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. Students must declare the major before reaching 135 units.

**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

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).

Policies
Students must complete the preparation courses with at least a 2.0 grade-point average.

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.

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, C113; three courses from Education M102, 106A, 107A, 107B, M108, C111, 126, 127, M131A, 132, 133; one course from Environmental Health Sciences C152D, C164, Science Education 100XP. 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
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.

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 3.5 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
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.

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 diffraction, 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

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.

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.

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.
try/Materials Science majors in the organic materials concentration must complete a full year of organic chemistry 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 course work.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

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, 121 or 150 or 160, 131, 8 units from Chemistry 111, 121, 122, 132, 150, 160, 162, CM180; 7 laboratory units from Chemistry and Biochemistry 114, 118, Materials Science and Engineering 121L, 131L, 161L.

Organic Materials Concentration

Preparation for the Major

Required: Chemistry and Biochemistry 121, 125, 160.

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

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, reactive substances, polymers, and many more. Connections are made between interplay of science, history, arts, and socio-economic factors driving technological development. 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 how knowledge 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; laboratory, three and one half hours. Focus on season baking soda and baking powder? Why do some recipes call for butter, margarine, or shortening? 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, intuitive way, while use of scientific method in improving food preparations is also learned. Opportunities to participate in scientific process through weekly at home experiments in kitchen, and creative research project. P/NP or letter grading.

7. Nanoscience and Nanotechnology Laboratory. (6) Seminar, discussion, and laboratory, 32 lecture 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, and laboratory, 32 lecture 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 for Life Scientists I. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background and three and one half years of high school mathematics. Prerequisite: completion of Chemistry Diagnostic Test. Enforced corequisite: Life Sciences 30A or Mathematics 3A or 31A or score of 4B or better on Mathe-
natics Diagnostic Test. Not open to students with credit for course 20A. Introduction to physical and general chemistry principles; atomic structure based on quantum mechanics; atomic properties; trends in periodic table; chemical bonding (Lewis structures, VSEPR theory, hybridization, 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—Enhanced. (4) Lecture, three hours; discussion, two hours. Preparation: high school chemistry or equivalent background and three and one half years of high school biology. Enforced corequisite: Life Sciences 30A or Mathematics 3A or 31A or score of 48 or better on Mathematics Diagnostic Test. Not open to students with credit for course 14A or 20A. Study of foundations of chemistry. Discussion of foundations of 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 biochemical acids, bases, and salts. Biological, environmental, and socially-relevant examples are used to illustrate central role that chemistry plays in our world. Emphasis on developing problem-solving skills and collaborative interaction and learning.

14B. General Chemistry for Life Scientists II. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 14A or 20A with grade of C– or better. Enforced corequisite: Life Sciences 30B or Mathematics 3B or 31B with grade of C– or better. Not open to students with credit for course 20B or 30A. Chemical equilibria in gases and liquids, acid-base concepts and problem solving; introduction to chemical thermodynamics; chemical equilibrium thermodynamics; and reaction mechanisms. P/NP or letter grading.

14BE. General Chemistry for Life Scientists II—Enhanced. (4) Lecture, three hours; discussion, two hours. Enforced requisite: course 14AE 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 14B, 20B, or 30A. Introduction of concepts in physical chemistry that are critical for understanding of molecular basis of life. Includes concepts in thermodynamics, which are required to predict what chemical reactions occur spontaneously, and concepts in kinetics, which are required to predict reaction rates.

14BL. General and Organic Chemistry Laboratory I. (3) Lecture, one hour; laboratory, three hours. Enforced requisite: course 14A or 20A or 20AH with grade of C– or better. Enforced corequisite: course 14B. Not open to students with credit for course 20BL. 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.

14C. Structure of Organic Molecules. (4) Lecture, three hours; discussion, one hour. Enforced requisite: courses 14B or 20B or 20BL, or 20B and 20L, with grades of C– or better. Enforced corequisite: course 14C. Synthesis and analysis of compounds; purification by extraction, chromatography, recrystallization, and sublimation; characterization by mass spectroscopy, 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, one hour. Enforced requisite: course 14C with grade of C– or better. Organic reactions, nucleophilic and electrophilic substitutions and additions; electrophilic aromatic substitutions; carbonyl reactions, catalysis, molecular basis of drug action, and organic chemistry of pharmacueticals. P/NP or letter grading.

17. Chemical Principles. (4) Lecture, three hours; discussion, one hour. Introduction to chemical principles, measurement of chemical quantities, gases, laws, solutions, acids, bases, and salts, molecular structure, and nomenclature. Collaborative learning and problem solving; introduction to chemistry laboratory practice. 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. 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 biology. Recommended preparation: high school physics. Requisite: completion of Chemistry Diagnostic Test. Enforced corequisite: Mathematics 31A. Not open to students with credit for course 20B. Survey of chemical processes, quantum chemistry, atomic and molecular structure and bondng, 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 31AH. Honors course parallel to course 20A. P/NP or letter grading.

20B. Chemical Energetics and Change. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 20A and Mathematics 31A with grade 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 20A or 20AH with grade of C– or better. Enforced corequisite: course 14A or 20AH. Not open to students with credit for course 20BL. Survey of chemical processes, quantum chemistry, atomic and molecular structure and bondng, molecular spectroscopy. P/NP or letter grading.

20L. General Chemistry Laboratory. (3) Lecture, one hour; laboratory, three hours. Enforced requisite: course 20A or 20AH with grade of C– or better. Enforced corequisite: course 14A or 20AH. Not open to students with credit for course 20BL. Survey of chemical processes, quantum chemistry, atomic and molecular structure and bondng, molecular spectroscopy. P/NP or letter grading.


30AL. General Chemistry Laboratory II. (4) Lecture, one hour; laboratory, six hours. Enforced requisite: courses 20B or (20BH), 20L, and 30A or 30AH, with grades of C– or better. Qualitative and quantitative analysis of chemical reactions and compounds, kinetics, separation, and spectroscopy. P/NP or letter grading.


30BL. Organic Chemistry Laboratory II. (4) Lecture, one hour; laboratory, four hours. Enforced requisite: courses 30A or (30AH), 30AL and 30B, with grades of C– or better. Basic experimental techniques in organic synthesis (performing reactions, monitoring reactions, and conducting purification, IR, NMR, mass spectrometry). Synthesis of known organic molecules on microscale level with focus on societally important molecules. 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 technologies, from industrial catalysis, to batteries, computer hard disks, and supercomputers. Computational modeling gains central stage in materials research and discovery, especially with emergence of artificial intelligence techniques and big data initiatives. Introduction to computational tools enabling materials modeling, analysis, predictions, and graphical visualization. Topics such as crystallography, solid state chemistry, and surface science are brought to life through an in-depth exploration of the many paths of discovery at UCLA. P/NP or letter grading.

88A. Serendipity in Science. (2) Seminar, two hours. Limited to 20 freshmen. Inquiry into unexpected discoveries 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.

99. Honors Seminars. (1 Seminar) three hours. Limited to 20 students. Designed as adjunct to lower-division honors course. Emphasis on 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. 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.

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.
C100. Genomics and Computational Biology. (5) Lecture, four hours; discussion, one hour. Introduction for bioinformatics and 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 large integrative mechanisms for putting this information back together to predict what happens in complete organism (e.g., over 80 percent of drug candidates fail in clinical trials). High-throughput experimental methods, such as sequencing, croarrays, mass-spec, 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 daily activity for biomedical scientists. Core principles and methodologies for analyzing genomics data to discover important medical questions, with a focus on concepts that guide data analysis rather than algorithm details. Concurrently scheduled with course C200. P/NP or letter grading.

101. Catalysts in Modern Discovery. (4) Lecture, three hours. Enforced requisites: 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 transformative role in synthesis of modern medicines. Particular attention throughout to discussion of case studies that address impact of catalysis in chemistry and importance of catalysis in drug discovery. 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. Enforced requisites: courses 30B, 30BL, 110A, 153A (or 153AH), 153L. Chemical aspects of air and water pollution, solid waste disposal, energy resources, and environmental chemical reactivity. 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. Enforced requisites: course 154, with grade of C- or better. Introduction to chemical biology. Topics include computational chemical biology, utility of synthesis in biochemical research, peptide biomimetics, designed receptors for cellular imaging, natural product biosynthesis, protein engineering and directed evolution, cell biology of metal ions, imaging metal ions in cells, metal-containing drugs. Concurrently scheduled with course CM205A. Letter grading.

C107. Organometallic Chemistry. (4) Lecture/discussion, four hours. Enforced requisites or corequisites: course 172. Survey of synthesis, structure, and reactivity (emphasizing mechanistic approach) of compounds containing carbon bonded to elements selected from main group metals, metalloids, and transition metals, including metals and metal carbonyls; applications in catalysis and organic synthesis. Concurrently scheduled with course C207. P/NP or letter grading.

C108. Mass Spectrometry for Chemists and Biochemists. (2) Lecture, one hour; laboratory, four hours. Requisites: course 153A. Introduction to principles and practice of organic and inorganic mass spectrometry. Topics include EI, CI, ICP/MS, 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: course 20B, Mathematics 32A or 3C (for life sciences majors), 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). Fundamentals of thermodynamics, chemical and phase equilibria, thermodynamic tools for analyzing solutions, electrochemistry, P/NP or letter grading.

110B. Topics in Physical Chemistry. (4) Lecture, three hours; discussion, one hour; tutorial, one hour; requisites: course 110A, 113A, Mathematics 32B, all with grades of C- or better. Kinetic theory of gases, principles of statistical mechanics, statistical thermodynamics, equilibrium structure and free energy, relaxation and transport phenomena, macroscopic chemical kinetics, molecular-level reaction dynamics, P/NP or letter grading.

113A. Physical Chemistry: Introduction to Quantum Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110A, 113A, Mathematics 32A, 32B, 33A, Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH, or 5A, 5B, and 5C, or 6A, 6B, and 6C, with grades of C- or better. Departure from classical mechanics: Schroedinger equation; quantum model systems: particle-in-box, harmonic oscillator, rigid rotor, and hydrogen atom; approximation methods: perturbation and variational methods; many-electron atoms; basic principle of chemical bonding, P/NP or letter grading.

113B. Physical Chemistry: Introduction to Molecular Spectroscopy. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 113A. Interaction of radiation with matter, microwave spectroscopy, infrared and Raman spectroscopy, vibration in polyatomic molecules, electronic spectroscopy, magnetic resonance spectroscopy. Concurrently scheduled with course C213B. P/NP or letter grading.

114. Physical Chemistry Laboratory. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 110A, 113A, with grades of C- or better. Enforced corequisites: courses 110B or 113B. 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 110A, 113A, with grades of B or better. Enforced corequisite: course 110B or 113B. 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.

115A. Special Topics in Physical Chemistry. (4) Lecture, four hours; discussion, one hour. Requisites: course 115A, Mathematics 31A, 31B, 32A, 32B, 33A, with grades of C- or better. Recommended: knowledge of differential equations equivalent to Mathematics 134 or 135 or Physics 131 and of analytic mechanics equivalent to Physics 105A. Course C115A or Physics 115B with grade of C- or better is requisite to C115B. Students intending course C115B normally expected to take course C115B in following term. Designed for chemistry students with serious interest in quantum chemistry. Postulates and systematic development of nonrelativistic one-electron expansion theorems; wells; oscillators; angular momentum; hydrogen atom; matrix techniques; approximation methods; time dependent problems; atoms, spectroscopy. Concurrently scheduled with courses C215A-C215B. P/NP or letter grading.


M117. Structure, Patterns, and Polymorph. (5) (Same as Honors Colloquium M180.) Lecture, four hours; discussion, two hours. Introduction to structures and their geometric underpinnings, with examples and applications from architecture (space frames, domes), biology (enzyme complexes, viruses), chemistry (symmetry), molecular cages, magnetic resonance (space filling), and physics (crystal 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. Enforced 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 microscale particles in viscous liquids is that such dispersions can be used as visual models for studying processes that chemistry undergraduate students typically learn about at level of molecular and molecular systems, yet they do not see. Temperature continuously excites molecules and causes rearrangements, giving dynamic views of macromolecules and particles in many fields, including cell and molecular biology, chemical engineering, chemistry, materials science, and physics. Letter grading.

M120. Soft Matter Laboratory. (4) (Same as Physics M120.) Lecture, four hours. 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.

C122. Mathematical Methods for Chemistry. (4) Lecture, four hours. 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. Concurrently scheduled with course C222. P/NP or letter grading.

C123A-C123B. Classical and Statistical Thermodynamics. (4–4) Lecture, four hours; discussion, one hour. Requisite: course 110B or 115B. Recommended: use of a computer. Rigorous presentation of fundamentals of classical 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, solid and fluid states, phase equilibria, electric and magnetic effects, ortho-para hydrogen, chemical equilibrium, reaction rate, journal paper, and electrolyte solutions, surface phenomena, high polymers, gravitation. May be concurrently scheduled with courses C223A-C223B. P/NP or letter grading.
125. Introduction to Python Programming and Machine Learning. (4) Lecture, three hours; computer laboratory, one hour. Require: course 14C or 30A, with grade of C– or better. Introduction to programming in Python and to machine learning and its many applications, including molecular structure and computational 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 structural models and deep learning including implementation. Exploration of mainstream applications of machine learning to problems of chemical interest, including molecular simulation, protein structure determination, and computer-aided drug design. Required tools include foundational Pythonic packages and applications for. Concurrently scheduled with course C226A. P/NP or letter grading.

C126A. Computational Methods for Chemists. (4) Lecture, four hours; laboratory, four hours. Preparation: programming experience in either BASIC, FORTRAN, C++, or PASCAL. Require: courses 110A, 113A, Mathematics 33A. Theoretical, numerical, and programming tools for constructing new chemical applications, including simple force fields and resulting in calculations for simple molecules, simple ab-initio methods for organic molecules and nanotubes, and classical dynamics and spectroscopy. 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. Require: course 153A. Engineering microorganisms for complex phenotype is common to synthetic and systems biology as it seeks to understand complex biological networks and how they can be directed for a specific purpose. Examples include metabolic engineering and synthetic biology. Production of advanced biofuels involves designing and constructing novel metabolic networks in cells. Such efforts require profound understanding of biochemical pathways, and biological regulation and are aided by tools in bioinformatics, systems biology, and molecular biology. Fundamentals of metabolic engineering, protein structure and function, and biochemical pathways. Use of systems modeling for metabolic networks to design microorganisms for energy applications. Concurrently scheduled with course CM227. Letter grading.

132. Food: Molecules, Microbes, Environment. (4) Lecture, three hours; discussion, one hour. Require: course 153A. Recommended requisites: Life Sciences 7A, 7B, Study of science of food. Study of food units physical, biological, environmental, social, and behavioral sciences. Specific concepts expand properties of food. Covers range of topics that focus on science of cooking, critical role of microbes in transformation of foods, genetic and environmental conditions affecting structure, function, and composition of food, and impact of different dietary systems on metabolism and physiology. Comprises four major interrelated topics: molecules of food and their sources, science of cooking, acquisition of food, eating, Letter grading.


138. Natural Product Biosynthesis: Chemical Logic and Enzymatic Machinery. (4) Lecture, three hours; discussion, one hour. Require: courses 30A, 30B, 30C, 153A. Covers fundamental chemical logic and enzyme mechanisms involved in biosynthesis of natural products. Covers major classes of natural products, including polyketides, terpenoids, 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 mechanisms, gene transferases, oxidoreductases, etc. Historical account of natural product isolation and characterization, as well as modern account of synthetic biology. Designed to develop skills and knowledge required in discovery of new natural products. Includes extensive survey of scientific literature in format of presentations and discussions. Letter grading.

C140. Bioinformatics. (4) Lecture, three hours. Require: courses 30C, 110A. Basic physical, chemical, and biological principles in bioinformatics; materials and strategies for top-down and bottom-up fabrication of ordered biologically derived molecules, chemical libraries; enzymes; catalysts; principles of biomimetic materials and applications at nanoscale. Concurrently scheduled with course C240. P/NP or letter grading.

C143A. Structure and Mechanism in Organic Chemistry. (4) Lecture, three hours; discussion, one hour. Require: courses 30C and 30CL (may be taken concurrently), 110B, and 113A, with grades of C– or better. Mechanisms of organic reactions. Acidity and acidity relationships of iso- tope effects. Molecular orbital theory; photochemistry; 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. Require: 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 Organ- ic Synthesis. (8) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30C and 30CL, with grades of C– or better. Lectures in modern synthetic reactions and processes, with emphasis on stereospecific methods for carbon-carbon bond forma- tion. Laboratory laboratory in 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. Require: 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 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 health care, explain how their education in chemistry and biochemistry has been successful, and what actual chemistry was used in their particular pro- fessions. Students learn and understand real-life applications of chemical concepts found in their coursework. 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 methods, use of antibody and kit reagents, figure preparation, authorship, mentoring, human sub- jects 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. (4) (Formerly numbered 51) Lecture, three hours. Require: courses 20B or 20BH, Mathematics 33A or 33B. Intro- duction to machine learning and many of its applications within chemical sciences. Topics include widely-used approaches for modeling large and complex data sets, including neural networks and deep learning, supervised and unsupervised learning, and dimensionality reduction. Explore applications of machine learning to problems of chemical interest, including molecular simulation and computer-aided drug and material design/discovery. Succinct intro- duction to linear algebra and programming in Python. Particular topics to be covered depend on student interest and input. P, NP or letter grading.

C153. Biochemistry: Introduction to Structure, Enzymes, and Metabolism. (4) Lecture, four hours; discussion, one hour. Require: course 14D or 30B, with grade of C– or better. Recommended: Life Sciences 2, 3, and 23L, or 7A, 7B. Structure of proteins, carbohydrates, lipids; enzyme catalysis and reaction mechanisms involved in metabolism, including glycolysis, citric acid cycle, and oxidative phosphorylation. P/NP or letter grading.

153AH. Biochemistry: Introduction to Structure, Enzymes, and Metabolism (Honors). (4) Lecture, three hours; discussion, one hour. Require: course 14D or 30B, with grade of C– or better. Recommended: Life Sciences 2, 3, 23L. Honors course parallel to course 153A. P/NP or letter grading.

153B. Biochemistry: DNA, RNA, and Protein Syn- thesis. (4) Lecture, four hours; discussion, one hour; tutorial, one hour. Require: course 153A or 153AH. Recommended: Life Sciences 2, 3, 23L, or 7A and 7B. Nucleotide metabolism; DNA replication; DNA re- pair; 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.

C153C. Biochemistry: Biosynthetic and Energy Me- tabolism and Its Regulation. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Require: courses 30C or 153AH. Metabolism of carbohydrates, fatty acids, amino acids, and lipids; photosynthetic metabolism and assimilation of inorganic nutrients; regulation of these processes. P/NP or letter grading.

153CH. Biochemistry: Biosynthetic and Energy Metabolism and Its Regulation (Honors). (4) Lecture, three hours; discussion, two hours. Require: 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. Require- sites: course 153A, Life Sciences 3 or 7A. Proteins are diverse set of macromolecules that perform critical functions within cells, ranging from enzymes that cata- lyze metabolic reactions to proteins that enable pathogens to cause disease. Introduction to field of protein structural biology, that seeks to understand molecular basis of protein function and atomic structures and by investigating how alterations in protein structure affects function. Students gain funda- mental understanding of protein structure and its relationship to function and its control, 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.

153L. Biochemical Method I. (4) Lecture, two hours; laboratory, four hours. Require: courses 14BL or 20L and 30AL, and 153AH (may be taken concurrently), with grades of C– or better. Integrated term-long project involving biofuel production in bac- teria. 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 enzyme activity. P, NP or letter grading.

154. Biochemical Methods II. (5) Lecture, two hours; laboratory, eight hours. Require: courses 14BL or 20L and 30AL, and 153AH (may be taken concurrently), with grades of C– or better. Integrated term-long project involving biofuel production in bac- teria. 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 enzyme activity. P, NP or letter grading.
characterizing function 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 pathophysiological processes involve mitochondrial function and dysfunction. Focus on understanding the role of mitochondria in cellular, tissue, and organismal levels. Topics include in-depth analysis of literature and critical evaluation of experimental design and methods of current research. May be repeated for credit. Concurrently scheduled with course CM255. P/NP grading.

156. Physical Biochemistry. (4) Lecture, four hours; discussion, one hour. Requisites: courses 110A, 135A. Biochemical kinetics; solution thermodynamics of biochemical systems; multiple equilibria; hydromechanics; energy levels, spectroscopy, and bonding; topics from structural, statistical, and electrochemical methods of biochemistry. P/NP or letter grading.

C159. Mechanisms of Gene Regulation. (4) Lecture, four hours; one course 135A. RNA polymerase structures and mechanisms; promoter recognition and transcription cycle; mechanisms of activation; transcriptional or elongation and elongation control; Mediator and RNA polymerase II, modification; epigenetic regulation; cotranscriptional and transcription-coupled RNA processing; impact of transcription on mRNA processing and stability; nuclear export of mRNA. Concurrently scheduled with course CM259. P/NP or letter grading.

CM160A. Introduction to Bioinformatics. (4) (Same as Computer Science CM121.) Lecture, four hours; discussion, one hour. Requisites: Computer Science 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 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 inverting need for algorithms and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM250. P/NP or letter grading.

CM160B. Algorithms in Bioinformatics. (4) (Same as Computer Science CM122.) Lecture, four hours; discussion, two hours. Requisites: Computer Science 32 or Program in Computing 10C with grade of C– or better, and one course from Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Course CM160A is not requisite to CM160B. Designed for engineering students as well as students from biological sciences and medical school. Development and application of computational approaches to biological questions, with focus on formulating interdisciplinary problems as computational problems and then solving these problems using algorithmic techniques. Computational techniques include those from statistics and computer science. Concurrently scheduled with course CM250. P/NP or letter grading.

C164. Free Radicals in Biology and Medicine. (2 to 4) Lecture, three hours. Enforced requisites: courses 135A and either 153B or 153C, with grades of C– or better. Biochemical reactivity of dioxygen, its role in mitochondrial and nonmitochondrial metabolic processes, 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), mitochondrial diseases, atherosclerosis, and aging. Concurrently scheduled with course CM284, P/NP or letter grading.

C165. Metabolic Control by Protein Modification. (4) Lecture, three hours; discussion, one hour. Requisites: courses 153A, 153B, 153C. Biochemical basis of controlling metabolic pathways by posttranslational modifications of proteins, including phosphorylation and methylation reactions. Concurrently scheduled with course C265. Letter grading.

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 advances in experiment and bioinformatics characterize of diverse structures and functions of RNA molecules in metabolism of living systems. RNA has been shown to act both as catalyst in living systems such as polymerases or signal transducers. Thus, control at every level of gene expression pathways (transcription, RNA processing, translation, degradation). RNA molecules now being used as therapeutic agents in gene therapy approaches. Coverage of these various aspects and in-depth analysis of RNA structure and function, using primary research literature and analysis of molecular structures of RNA and RNA-protein complexes. Letter grading.


171. Intermediate Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course 230B with grade of C– or better. Systematic approach to modern inorganic chemistry, structures of both ionic and covalent molecules and solids, structure/reactivity relationships, vibrational spectra of complexes, electronic structure and ligand-field effects; coordination chemistry, electronic reactions, bonding and spectroscopy of organometallic compounds, transition metals in catalysis and biology. Concurrently scheduled with course CM269. 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. Further applications of the methods of inorganic chemistry to problems of coordination, 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. Enforced requisites: courses 113A and 172, with grades of C– or better. Group theoretical methods; molecular orbital theory; ligand-field theory; electronic spectroscopy; vibrational spectroscopy. May be concurrently scheduled with course C276A. P/NP or letter grading.

C180. Solid-State Chemistry. (4) Lecture, three hours. Requisite: course 172 with grade of C– or better. Synthesis of inorganic materials, from the perspective of the 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 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, stereoregular and atactic polymers, description of unique properties of polymers, polymer characterization methods, and special topics such as conductive and biomedical polymers and polymer re- actions. 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, principles, and applications of modern instrumentation in chemical and structural analysis, including atomic absorption spectroscopy, gas chromatography, mass spectrometry, 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 30CL and 113A, 171, 174, or 175; courses 33B and 23L, and course 153L. Recommended: courses 153A, 153B, Life Sciences 3, and 23L, or 7A. Introduction to functional materials synthesis and physical properties of complex materials. Combines synthetic skills with fundamental physical understanding and characterization in approximately equal proportions to relate materials synthesis to materials function. Letter grading.

M186. Stochastic Processes in Biological Systems. (4) (Same as Computational and Systems Biology M175.) Lecture, three hours. Requisites: Life Sciences 3, 104, 111A, 171, 174, or 175; Mathematics 33B, Electrical and Computer Engineering 131A or Mathematics 107A or Statistics 100A. Covers random and stochastic processes in play in biochem- ical systems, including ion channels, cell migration and mitosis, gene expression networks, and signal transduction. Covers mathematical tools such as continuous and discrete Markov processes, first passage, time escape problems, statistical me- chanics, and information theory. Letter grading.

1885A. 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.


1885C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 1885B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitator is engaged in a USIE. 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 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 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.

192A–192B. Undergraduate Practicum in Chemistry and Biochemistry. (4–2) Lecture, one hour; laboratory, four hours; workshop, two hours. Enforced requisites: courses 148L and 14CL, or 20L and 30AL, or Science Education 100S/L. Intended for students who are planning careers in secondary chemistry science teaching. Complements special learning California Teach science courses that involve teaching field experiences in middle school and high school classroom settings. Examination of chemistry issues such as chemical storage and use, waste management, 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 development of innovative programs under guidance of faculty members and teaching assistants. May not be applied toward course requirements for any departmental major. May be repeated for credit with consent of instructor. Individual contract required. Information and contracts may be obtained from department. P/NP grading.

192E. Introduction to Collaborative Learning Theory and Practice. (1) Formerly numbered 192E. (Same as Computer Science M192A, Life Sciences M192A, Mathematics M192A, and Physics M192B.) Seminar, half-hour presentations each session, seminar for graduate students who are selected for learning assistant (LA) program. Exploration of current topics in pedagogy and education research focused on: methods of teaching and their practical application in small-group settings. Students practice communication skills with frequent assessment of and feedback on progress. Letter grading.

192F. Methods and Application of Collaborative Learning Theory and Practice: Introduction, Methods, and Applications. (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 educational principles based on current education research, assist with development of instructional levels of student feedback during the year. May be repeated 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 from current literature. May be repeated for credit. Letter grading.

193B. Journal Club Seminars: Chemistry and Biochemistry Research. (2–4) Seminar, three hours. Limited to advanced undergraduate students. Discussion of readings selected from current literature in particular field. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Chemistry and Biochemistry. (1) Seminar, three hours. Designed for undergraduate 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 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor. Consult department for additional information regarding requirements, enrollment policies, petition process. May be repeated for maximum of 8 units. Individual contract required. P/NP grading.

196B. Research Apprenticeship in Chemistry and Biochemistry. (2 to 4) Seminar, 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.

197. Directed Research in Chemistry and Biochemistry. (2 to 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. Consult department for additional information regarding requirements, enrollment petitions, and written proposal deadlines. May be taken for maximum of 12 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Genomics and Computational Biology. (5) Lecture, four hours; discussion, one hour. Introduction for bioinformatics and computational 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. Biologists have mechanized the process. A „putting this information back together to predict what happens in complete organism (e.g., over 80 percent of drug candidates fail in clinical trials). High-throughput technologies such as sequencing, mi- croarrays, mass-spec, and robotics have given biologists incredible new capabilities to analyze complete genomes, expression patterns, functions, and interactions. Fairly new for theoretical biologists and chemists. Use and analysis of such datasets becomes essential daily activity for biomedical scientists. Core principles and methodologies for analyzing genomic data to pose, test, and answer questions, with focus on concepts that guide data analysis rather than algorithm details. Concurrently scheduled with course C100. S/U or letter grading.

204. 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, MS/MS, ESI, MALDI, MS/MS protein identification, and proteomics. Concurrently scheduled with course C108. S/U or letter grading.


206. Chemistry of Biology Seminar. (2) Seminar, three hours. Limited to students supported by UCLA programs (Chemistry/Biology Interface Predoctoral Training, Current Research Topics at interface of chemistry and biology. May be repeated for credit. S/U grading.

207. Organometallic Chemistry. (4) Lecture/discussion, three hours. Requisite: course 172. Survey of synthesis, structure, and reactivity (emphasizing mechanistic approach) of compounds containing carbon bonded to elements selected from main groups, transition metals, and transition metal ions, including olefin complexes and metal carbynols; applications in catalysis and organic synthesis. Concurrently scheduled with course C107. S/U or letter grading.

209. Introduction to Molecularity Research. (2) Seminar, half-hour presentations each session by three different chemistry professors to introduce their research programs. S/U grading.

210. Advanced Topics in Chemistry 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. Physical Chemistry; Molecular Spectroscopy. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 113A. Interaction of radiation with matter, microwave spectroscopy, infrared, Raman and X-ray spectroscopy of atomic molecules, electronic spectroscopy, magnetic resonance spectroscopy. Concurrently scheduled with course C113B. Independent study project required of graduate students. S/U grading.

C215A–C215B. Quantum Chemistry: Methods. (4–4) Lecture, four hours; discussion, one hour. Requisites: course 113A, Mathematics 31A, 31B, 32A, 32B, or 33A, with grades of C– or better. Recommended: knowledge of differential equations equivalent to Mathematics 134 or 135 or Physics 131 and of analytic mechanics equivalent to Physics 105A. Course C215A of Physics 115A with grades of C– or better is recommended to C215B. Students entering course C215A are normally expected to take course C215B in following term. Designed 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 applications; quantum chemistry selected from molecular structure, collision processes, theory of solids, symmetry and its applications, and theory of electromagnetic radiation. Concurrently scheduled with course C115C. S/U or letter grading.


218. Chemistry Student Exit Seminar. (2) Seminar, two hours. Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U grading.

219A. Seminars: Research in Physical Chemistry—Photon Resolved Spectroscopy of Materials (Physical Chemistry). (2) Seminar, three hours. Limited to chemistry graduate students. Discussion of recent progress in area of photon resolved spectroscopies, with focus on materials and biophysics applications. Literature discussion, discussion of recent results, safety procedures, and equipment. S/U grading.

219E-219Z. Seminars: Research in Physical Chemistry. (2 each) Seminar, three hours. Advanced study and analysis of current topics in physical chemistry. Discussion of current research and literature in research specialty. Concurrently scheduled with course C110C. S/U or letter grading.


221A-221Z. Advanced Topics in Physical Chemistry. (2 to 4 each) Lecture, two to four hours. Each course recognizes specialization. Specialization in physical chemistry, generally taught by faculty members whose research interests embrace that specialty. S/U or letter grading.

222. Mathematical Methods for Chemistry. (4) Lecture, four hours. 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 calculus of ordinary and partial differential equations. Development of problem-solving skills through homework based on these mathematical techniques, with examples from physical chemistry. Concurrently scheduled with course C112. S/U or letter grading.

223A-C223B. Classical and Statistical Thermodynamics. (4-4) Lecture, four hours; discussion, one hour. Requisite: course 110B or 156. Required. C223A. Presentation of fundamentals of classical 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, solid and fluid states, phase equilibria, electric and magnetic effects, ortho-para equilibrium, reaction rates, imperfect gas, nonelectrolyte and electrolyte solutions, surface phenomena, high polymers, gravitation. May be concurrently scheduled with courses C223A-C223B. S/U or letter grading.
249C. Methods of Physical/Theoretical/Biophysical Chemistry. (Seminar, two hours. Designed for first-year graduate students; to teach and enhance problem-solving skills and critical thinking, with focus on problems and recent literature pertaining to physical, theoretical, and biophysical chemistry. S/U grading.)

C250. Research Methods and Integrity in Cellular and Molecular Biology. (Lecture, four hours; discussion, two hours; trans- cussion, two hours. Data analysis and management, statistical methods, use of antibody and kit reagents, figure preparation, authorship, mentoring, human sub- jects protection, animal protection, and conflict of interest. May be repeated for credit. Concurrently scheduled with course C150. Letter grading.)

CM255. Mitochondria in Medicine, Biology, and Chemistry. (Same as Biological Chemistry M255.) Seminar, two hours every other week. Open to undergraduate and graduate science majors considering or currently conducting research in areas related to mito- chondria. Large number of physiological and patho- physiological processes involve mitochondrial function and dysfunction. Focus on understanding how mitochondria metabolism, form, and function impact health and disease. Physiology and cell biology of health and disease. Mitochondria observed and trans- sessed at subcellular, cellular, tissue, and organismal levels. Topics include in-depth analyses of literature and critical evaluation of experimental design and methods of current research. May be repeated for credit. Concurrently scheduled with course C155. S/U grading.)

256A-256Z. Seminars: Research in Biochemistry. (2 each) Seminar, one hour. Advanced study and analysis of current topics in biochemistry. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.


257. Physical Chemistry of Biological Macromolecules. (4) Lecture, one hour; discussion, one hour; laboratory, four hours. Requisite: course 153A. Theory of hydrogen bond, thermodynamic, and kinetic principles used to study structure and function of biological macromolecules. S/U or letter grading.

258. Advanced Topics in Biochemistry and Molecular Biology. (2) Lecture, two hours. Critical analysis of experimental design and methods in biochemistry and molecular biology. In-depth analysis of literature in one or more areas of current research. May be repeated for credit. S/U or letter grading.

CM258A. Introduction to Bioinformatics. (4) (Same as Bioinformatics M258A, Computer Science CM258A, and Human Genetics M260A.) Lecture, four hours; discussion, two hours. Requisites: Computer Science 32 or Program in Computing 10C with grade of C– or better, and one of Biology 100A, 100B, 100C, 110A, 110B, 110C, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Prior knowl- edge of biology not required. Designed for engineering students well versed in sciences, mathematics, and medical school. Introduction to bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical tech- niques to analyze sequence and alignment algorithms. Concurrently scheduled with course CM160A. S/U or letter grading.

CM260B. Algorithms in Bioinformatics. (4) (Same as Bioinformatics M222 and Computer Science CM222.) Lecture, four hours; discussion, two hours. Requisites: Computer Science 32 or Program in Computing 10C with grade of C– or better, and one course from Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, Mathematics 170E, or Sta- tistics 100A. Course CM260A is not requisite to CM260B. Designed for engineering students as well as students from medical and other scientific fields. Experience in bioinformatics algorithms and foundation for how to implement in research. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM160B. S/U or letter grading.

260BL. Advanced Bioinformatics Computational Laboratory. (2) Laboratory, four hours. Enforced requi- site: course CM260A. Corequisite: course CM260B. Development and application of computational ap- proaches to address biological 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 ob- serving impact of computational complexity of algo- rithms in computing solutions. S/U or letter grading.


C271. Advanced Topics in Inorganic Chemistry. (2 to 4) Lecture, two to four hours. Each offering encom- passes one recognized specialty in inorganic chem- istry, generally taught by faculty members whose research interests embrace 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 inorganic chemistry, including bonding of inorganic molecules and solids, structure/reactivity relationships, vibrational spectra of complexes, elec- tronic structure and ligand-field theory, mechanisms of inorganic reactions, bonding of oxygen and car- bon macrocycles, transition metals in catalysis and biology. Concurrently scheduled with course CM172. S/U or letter grading.

272C. Seminar, three hours. Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U or letter grading.

272I. Seminar, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 171, with grades of C– or better. Survey of new materials and methods for their preparation, characterization, and evaluation. Successful completion of this course is strongly recommended for students considering advanced research in the area of materials science.


275. Materials Chemistry Laboratory. (5) Lecture, two hours; laboratory, eight hours. Introduction to principles of electrochemical systems commonly applied in research 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 from electrochemical characterization methods. Understanding of course contents helps appreciate research and technologies in catalysis, energy storage and conversion, and advanced environmental technologies. Concurrently scheduled with course C174. S/U or letter grading.

276A. Group Theory and Applications to Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Introduction to group theory and applications of spectroscopic techniques, including molecular orbital theory, ligand-field theory, electronic spectroscopy; vibrational spectroscopy. May be concurrently scheduled with course C176. S/U or letter grading.

276B. Physical Methods in Inorganic Chemistry. (4) Lecture, three hours. Enforced requisites: course C276A. Theory and applications of spectroscopic techniques, including molecular orbital theory, ligand-field theory, electronic spectroscopy; vibrational spectroscopy. May be concurrently scheduled with course C176A. S/U or letter grading.

277. Crystal Structure Analysis. (4) Lecture, three hours. Theory and practice of modern crystallography, with emphasis on practical experience in structure determination. Topics include crystallographic symmetry, scattering theory, data collection, Fourier analysis, heavy atom techniques, direct methods, isomorphous replacement, crystallographic refinement, error analysis, and common pitfalls. S/U or letter grading.

278. 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.

280. Solid-State Chemistry. (4) Lecture, three hours. Enforced requisites: course 172 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 course C180. S/U or letter grading.

281. Polymer Chemistry. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 30B, 110A. Synthesis of organic and inorganic macromolecules, thermodynamic and statistical mechanical description of unique properties of polymers, 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.


597. Preparation for MS Comprehensive Examination. (2 to 4) Tutorial, to be arranged. May be taken for maximum of 16 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

College of Letters and Science
7349 Bunche Hall
Box 951559
Los Angeles, CA 90095-1559
Chicana/o and Central American Studies
310-206-7695
Student Adviser e-mail
Leisy J. Abrego, PhD, Chair

Faculty Roster

Professors
Leisy J. Abrego, PhD
Eric R. Avila, PhD
Matthew A. Barreto, PhD
Charlene Villaseñor Black, PhD
Maylci S. Blackwell, PhD
Jason P. De León, PhD
Alícia Gaspar de Alba, PhD
Laura E. Gómez, PhD
Reynaldo F. Macías, PhD
Daniel G. Solórzano, Jr., PhD
Abel Valenzuela, Jr., PhD

Professors Emeriti
Judith F. Baca, MA
Susan J. Plann, PhD
Maria Cristina Pons, PhD
Otto Santa Ana, PhD

Associate Professors
Raúl A. Hinojosa-Ojeda, PhD
Gaye T. Johnson, PhD
Robert Chao Romero, JD, PhD
J. Christopher Zepeda-Millán, PhD

Assistant Professors
Karina Alma, PhD
Floridalma Boj López, PhD
Genevieve G. Carpio, PhD
Laura Chávez Moreno, PhD

Lecturers
Alma López Gaspar de Alba, MFA
Avis F. Ridley-Thomas, BA

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. Alternatively, 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 learned 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

Preparation for the Major
Required: Chicana/o and Central American Studies 10A, 10B, Spanish 5 or equivalent.

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.

The Major
Required: A total of 11 upper-division courses, including Chicana/o and Central American Studies 101; one service learning course from 100SL or M170SL 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


Policies
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.

The application for admission must be submitted in spring quarter of the year prior to admission to the program, with the advice and consent of a faculty sponsor. 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.

Students who are currently undertaking the optional multidisciplinary senior thesis and who are eligible for the honors program may apply to switch to the honors program (provided it does not delay their progress toward the degree) with the approval of the department.

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.
required Upper-Division Courses (20 units min-
imum) selected from the approved list (avail-
able in the department office each term).

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 2.0 or better in the mi-
nor. Successful completion of the minor is indi-
cated on the transcript and diploma.

Graduate Major
Chicana and Chicano Studies MA, PhD
Program Requirements
Official, specific degree requirements are de-
tailed in program requirements for UCLA grad-
uate degrees, available at the Graduate Divi-
sion 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
M5A-M5B-M5C. Elementary Nahua. (4–4–4) (For-
merly numbered Chicana and Chicano Studies M5A-
M5B-M5C) (Same as Indigenous Languages of the
Americas M5A-M5B-M5C and International and Area
Studies M5A-M5B-M5C.) Lecture, five hours. Course
M5A is enforced requisite to M5B, which is enforced
requisite to M5C. Introduction to Aztec language of
central Mexico. Coverage of basic Nahua grammar,
with equal emphasis on reading, writing, conver-
sation, and comprehension. P/NP or letter grad-
ing.

10A. Introduction to Chicana/Chicano Studies: His-
tory and Culture. (5) (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 indigeneity,
gender, sexuality, language, and borders, that help shape Chi-
icana/Chicano identities. Emphasis on critical reading
and writing skills. Letter grading.

10B. Introduction to Chicana/Chicano Studies: So-
cial Structure and Contemporary Conditions. (5)
(Formerly numbered Chicana and Chicano Studies
10B.) Lecture, three hours; discussion, one hour. Mul-
tidisciplinary examination of representation, ideolo-
gies, 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.

M15A-M15B-M15C. Intermediate Nahua. (4–4–4)
(Formerly numbered Chicana and Chicano Studies
M15A-M15B-M15C.) (Same as Indigenous Languages of
the Americas M15A-M15B-M15C and International and
Area Studies M15A-M15B-M15C.) Lecture, four
hours. Enforced requisite: courses M5A, M5B, M5C.
Course M15A is enforced requisite to M15B, which is
enforced requisite to M15C. Taught primarily in Na-
huatl. Examination of Nahua (Aztec) language of cen-
tral Mexico at intermediate level. Coverage of Nahua
grammar, with equal emphasis on reading, writing,
conversation, and comprehension. P/NP or letter grad-
ing.

M16. Leadership and Student-Initiated Retention. (2)
(Formerly numbered Chicana and Chicano Studies
M16.) Same as African American Studies M18, Amer-
ican Indian Studies M18, and Asian American Studies
M18.) Seminar, two hours. Limited to freshmen/soph-
omores/first-year transfer students. Not open for
credit to students with credit for course M118. Explor-
ation of issues in retention at UCLA through lens of
student-initiated and student-run programs, efforts,
activities, and services. Focus on populations with his-
torically low graduation rates targeted by Campus Re-
tention Committee. May not be applied toward de-
partmental 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. Central American Studies: Histories and Cul-
tures. (3) (Formerly numbered Chicana and Chicano
Studies 20.) Lecture, one hour; discussion, one hour.
Survey of histories of Central Americans from time of
independence movements of early 18th century to
present. Major topics include local indigeneities, inde-
pendence movements, 19th- and 20th-century de-
pendence, state-nation and identity formation, politics
of mestizaje, Indigenous resistance, imperialism and
economic growth, relations with U.S., politics of devel-
opment, and contemporary social movements. Letter
grading.

88. Sophomore Seminars: Chicana/o and Central Ameri-
can Studies. (2) (Formerly numbered Chicana and
Chicano Studies 88.) Seminar, two hours. Limited to
lower-division students. Readings and discussions
designed to introduce students to current research in
Chicana/chicano studies. Culminating project may be
required. May not be applied toward departmental major
or minor requirements. May be repeated for
credit with topic change. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Lim-
ited 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. P/NP or
letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours.
Limited to students in College Honors Program. De-
digned as adjunct to lower-division lecture course.
Individually 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 Chicana/o and Central Ameri-
can Studies. (2) (Formerly numbered Chicana and
Chicano Studies 97.) Seminar, two hours. Requisite:
course 10A or 10B. Current topics and particular re-
search methods in Chicana and Chicano studies
through readings and other assignments. May be re-
peated for credit. P/NP or letter grading.

98. Professional Schools Seminars. (2) (Formerly
numbered Chicana and Chicano Studies 98.) Seminar,
two hours. Limited to 20 students. Introduction to is-
sues of professional (nonacademic) settings and ca-
reers through readings and other assignments. P/NP
or letter grading.

99. Student Research Program. (1 to 2) Tutorial (su-
ervised 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

100XP. Barrio Organization and Service Learning. (5) (Formerly numbered 1000SL.) Seminar, two hours; discussion, two hours; field placement, six hours. Limited to juniors/seniors. Service learning placement in community organization and leadership under the direction of a vice-president or non-profit organization. Study of role that these organizations play in improvement and change of Chicana/Chicano communities. Students meet on regular basis with instructors and provide periodic reports of their experience. Letter grading.


M102. Mexican Americans and Schools. (4) (Formerly numbered Chicana and Chicano Studies M102.) (Same as Education M102.) Seminar, two hours; discussion, two hours. Theoretical and empirical overview of Chicana and Chicano educational issues in U.S., with specific emphasis on privilege and race, gender, class, and immigrant status on Chicana/Chicano educational attainment and achievement. Examination of how historical, social, political, and economic factors have shaped Chicano educational experience. P/NP or letter grading.

M103C. Origins and Evolution of Chicano Theater. (Formerly numbered Chicana and Chicano Studies M103C.) (Same as Theater M103C.) Lecture, three hours. Special emphasis on determination, experiences of exile and migration, border zones, enclaves and language, and mestizaje and its impact on cultural production. P/NP or letter grading.

M103D. Contemporary Chicano Theater: Beginning of Chicano Theater Movement. (Formerly numbered Chicana and Chicano Studies M103D.) (Same as Theater M103D.) Lecture, three hours. Analysis and discussion of historical and political events from 1910 to 1945 as theatrical traditions that led to emergence of Chicano theater. Letter grading.


104. Comedy and Culture: Your Humorous Life. (4) (Formerly numbered Chicana and Chicano Studies M104.) Lecture, four hours. How to mine unique humorous life adventures from students’ cultural identities and experiences into humorous literature. Students acquire skills to read their stories out loud, with emphasis on comedy in their pieces through art of storytelling and performance. P/NP or letter grading.

105F. Gender, Fiction, and Social Change. (4) (Formerly numbered Chicana and Chicano Studies 105F.) Lecture, four hours. Requisite: English Composition 3. Study of essays, novels, short narratives, and plays written by Chicanas/Latinas. Required readings represent written works that focus on themes of identity, ethnicity, gender, and cross-border experiences leading to social change. Critical reading and analysis of works, searches for strengths and flaws, to point out unique contributions and further larger body of U.S. literature. P/NP or letter grading.

105SP. Seminar: Chicana and/or Latina/Latina Literature—Community-Engaged Learning. (5) (Formerly numbered Chicana and Chicano Studies M105SL.) (Same as English 105SL) Seminar, three hours; field placement, three or four hours. Enforced requisite: English Composition 3. Specialized studies in Chicana and/or Latina/Latina literature. In-depth study of various topics related to Chicana/Latina communities in Southern California, including Chicana/Chicana visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicana and Chicano 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.

CM106. Health in Chicano/Latino Population. (4) (Formerly numbered Chicana and Chicano Studies CM106.) (Same as Public Health CM106.) Lecture, four hours; discussion, one hour (when scheduled). Examinations of Chicano/Latino health status through life expectancy, causes of death, reportable diseases, services utilization, provider supply, and risk behaviors within demographic changes. Bihistorical review of health effects in U.S. and Mexico. Concurrently scheduled with course C276. 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 M104C, Public Affairs M131, 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.


M108A. Music of Latin America: Mexico, Central America, and Caribbean Isles. (5) (Formerly numbered Chicana and Chicano Studies M108A.) (Same as Ethnicnomusicology 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 requisite: course 10A or Gender Studies 10. 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/Chicano community and dominant society. Attention to Anglo-European and Third World women. Concurrently scheduled with course CM214. P/NP or letter grading.

111. Chicana/Chicano and Latina/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 traditions in Americas. Roles of writers as intellectuals and cultural/political strategists, and as definers of (national) identity, social reality, and struggles of liberation. Letter grading.

113. Day of Dead Ritual. (4) (Formerly numbered Chicana and Chicano Studies M113.) Lecture, four hours; discussion, one hour (when scheduled). Introduction to philosophical roots and evolution of traditional celebration of Day of Dead ritual. Contemplation of alternative rituals, Spanish-American, and other influences and manifestations of this ritual. Special attention to Nahual ritual language and worldview related to this ancient ritual, such as ancient calendar systems.
113B. Origin and Evolution of Ritual Traditions in Mexico and Central America. (4) (Formerly numbered Chicana and Chicano Studies 113B.) Lecture, four hours (discussion, one hour). Goal is to gain nuanced understanding of Chicana cinema as political, socio-economic, cultural, and aesthetic practice. Examination of representation of Mexican Americans and Chicanos in Hollywood—silent genre films, social problem films, Westerns, and gang films—that are major genres that account for films about or with Mexican Americans produced between 1928 and 1980. Examination of Chicanaand Chicano-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 pioneer and up-and-coming filmmakers. P/NP or letter grading.

M114. Chicanos in Film/Video. (5) (Formerly numbered Chicana and Chicano Studies M114.) (Same as Film and Television M117.) Lectures/screenings, five hours; discussion, one hour. Goal is to gain nuanced understanding of Chicana cinema as political, socio-economic, cultural, and aesthetic practice. Examination of representation of Mexican Americans and Chicanos in Hollywood—silent genre films, social problem films, Westerns, and gang films—that are major genres that account for films about or with Mexican Americans produced between 1928 and 1980. Examination of Chicana and Chicano-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 pioneer and up-and-coming filmmakers. P/NP or letter grading.

M115. Musical Aesthetics in Los Angeles. (4) (Formerly numbered Chicana and Chicano Studies M115.) (Same as Ethnomusicology M115.) Lecture, four hours. Preparatory reading for lecture and discussion of musical aesthetics produced under Chicana and Chicano Studies M114.) (Same as Film and Television M117.) Lectures/screenings, five hours; discussion, one hour. Goal is to gain nuanced understanding of Chicana cinema as political, socio-economic, cultural, and aesthetic practice. Examination of representation of Mexican Americans and Chicanos in Hollywood—silent genre films, social problem films, Westerns, and gang films—that are major genres that account for films about or with Mexican Americans produced between 1928 and 1980. Examination of Chicana and Chicano-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 pioneer and up-and-coming filmmakers. P/NP or letter grading.

M116. Chicano/Latino Music in U.S. (5) (Formerly numbered Chicana and Chicano Studies M116.) (Same as Ethnomusicology M116.) Lecture, four hours; discussion, one hour. Goal is to gain nuanced understanding of Chicana cinema as political, socio-economic, cultural, and aesthetic practice. Examination of representation of Mexican Americans and Chicanos in Hollywood—silent genre films, social problem films, Westerns, and gang films—that are major genres that account for films about or with Mexican Americans produced between 1928 and 1980. Examination of Chicana and Chicano-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 pioneer and up-and-coming filmmakers. P/NP or letter grading.

117. Chichana/Chicano Images in Mexican Film and Literature. (4) (Formerly numbered Chicana and Chicano Studies M117.) Lecture, four hours. Focus on labor, immigration, economic structures, electoral politics, and international dimensions. Letter grading.

120. Immigration and Chicano Community. (4) (Formerly numbered Chicana and Chicano Studies 120.) Lecture, three hours. Focus on labor, immigration, economic structures, electoral politics, and international dimensions. Letter grading.

121. Issues in Latina/Latino Poverty: Mexican and Central American Voices from Los Angeles. (4) (Formerly numbered Chicana and Chicano Studies M121.) Lecture, three hours. Investigation of representation of Latina/Latino populations in Los Angeles. 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 differences between 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 and how these result in different forms of urban poverty in contemporary American society. Letter grading.

122. Planning Issues in Latina/Latino Communities: Preserving and Strengthening Community Assets in Mexican and Salvadoran Los Angeles. (4) (Formerly numbered Chicana and Chicano Studies M122.) (Same as Labor Studies M122 and Urban Planning M117.) Lecture, four hours. How community and economic development 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 the rich diversity of Chicana and Chicano communities in Los Angeles. Letters entail 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 123.) Lecture, three hours. Focus on labor, immigration, economic structures, electoral politics, and international dimensions. Letter grading.

124. Latinx Immigration History and Politics. (4) (Formerly numbered Chicana and Chicano Studies M124.) (Same as Honors College M142.) Lecture, four hours. Critical introduction to U.S. immigration policies and politics, and their disproportionate impacts on Latinx communities. 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 policies (e.g., legalization, border militarization, deportation) and politics (from voting to activism). P/NP or letter grading.

125. U.S./Mexico Relations. (4) (Formerly numbered Chicana and Chicano Studies M125.) Lecture, four hours. Exploration of Mexican and Chicana/Latino communities in Los Angeles. Exploration of academic, political, and community development, and unique synergies and pitfalls that enable or disable communities from developing to their potential. How to strengthen and how to preserve the rich diversity of Chicana and Chicano communities in Los Angeles. Letters entail historical analysis, reviews, interviews, electronic asset mapping, web-based data processing and analysis, oral and written reports, and cyber-based research. Letter grading.


M127. Farmworker Movement, Social Justice, and United Farm Workers Legacy. (4) (Formerly numbered Chicana and Chicano Studies M127.) (Same as Labor Studies M127.) Lecture, four hours. Focus on labor, immigration, economic structures, electoral politics, and international dimensions. Letter grading.

M128. Race, Gender, and U.S. Labor. (4) (Formerly numbered Chicana and Chicano Studies M128.) (Same as Labor Studies M128.) Lecture, four hours. Focus on labor, immigration, economic structures, electoral politics, and international dimensions. Letter grading.


M132. Planning Issues in Latina/Latino Communities: Preserving and Strengthening Community Assets in Mexican and Salvadoran Los Angeles. (4) (Formerly numbered Chicana and Chicano Studies M132.) Lecture, four hours. Exploration of Latina/Latino communities and workplace sites, especially participant observation, interviews, and fieldwork techniques. Letter grading.

M133. Chicana Lesbian Literature. (4) (Formerly numbered Chicana and Chicano Studies M133.) Lecture, three hours. Focus on labor, immigration, economic structures, electoral politics, and international dimensions. Letter grading.

M134XP. Engaging Immigrants and Their Families. (4) (Formerly numbered Chicana and Chicano Studies M134XP.) Seminar, four hours. Course counts as Community Engagement and Social Change M134XP and Labor Studies M134XP.) Lecture, two hours; discussion, two hours; field placements, two hours. Focus on labor, immigration, economic structures, electoral politics, and international dimensions. Letter grading.

M134SL. (Same as Community Engagement and Social Change M134SL) Seminar, three hours. Focus on labor, immigration, economic structures, electoral politics, and international dimensions. Letter grading.
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.

CM135. Bilingual Writing Workshop. (4) (Formerly numbered Chicana and Chicano Studies CM135) (Same as English M135C and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M135.) Seminar, four hours. Limited to juniors/seniors. Writing sample required; access to course web page mandatory. Focus on writing in bilingual cultures. Bilingual, bicultural, and bicultural identities; writing about self and experiences; peer critique; analysis of number of important scholarly and critical statements pertaining to characteristics and development of Chicano literary corpus. Letter grading.

C145B. Literature of Chicana/Chicano Movement. (4) (Formerly numbered Chicana and Chicano Studies M145B.) (Same as Spanish M155AB.) Lecture, three hours. Enforced requisite: Spanish 25 or 27. Introduction to texts representative of Chicano literary heritage. Sampling of poetic and prose works of Chicano authors from various historical and geographical settings and points of view characteristic of work written by Chicanos during 20th century. Most required reading in Spanish. Bilingual and English writing encouraged. Three hours of discussion and analysis of a number of important scholarly and critical statements pertaining to characteristics and development of Chicano literary corpus. Letter grading.

C148. Politics of Struggle: Race, Solidarity, and Transnational Organizing. (4) (Formerly numbered Chicana and Chicano Studies CM147.) (Same as Chicana and Chicano Studies M148.) Lecture, four hours. 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 policies and impact local actors and their communities. In time when people, capital, cultures, and technologies cross national borders with growing frequency, discussion of processes of accelerated globalization has been linked to labor and migration, environmental degradation, questions of diaspora, sexuality, and cultural displacement, as well as growing global militarization. Problems and issues created by globalization are examined in social and political responses envisioned by transnational organizing. Concurrently scheduled with course C215. P/NP or letter grading.

C149. Afro-Latina/o Experience(s) in U.S. (4) (Formerly numbered Chicana and Chicano Studies 149B.) 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 and U.S. influences Afro-Latina/o regional identities and different types of Afro-Latina/os that include Blackxicans, Nuyoricanos, Afro-Cubans, and others are taken into account. Discussion of themes that include feminism, migration, and identities in order to obtain comprehensive picture of Afro-Latina/os in U.S. yesterday and today. P/NP or 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 and 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 ad

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 and U.S. foreign policy in context of historical, political, social, and legal issues and court decisions involving U.S. and its role and relations with governments and institutions. Historical and contemporary development of regional and national law, institutions, law, and norms related to promotion and protection of human rights. P/NP or letter grading.

152. Disposable People: U.S. Deportation and Repatriation. (4) (Formerly numbered Chicana and Chicano Studies 152.) Seminar, four hours. Examination of U.S. deportation campaigns targeted at Mexican, Central American, and other Latin American workers, residents, and U.S.-born children. Addresses various periods of large-scale, highly-organized deportation and repatriation efforts including Great Depression in 1930s, Operation Wetback in 1950s, Central American Contras, and recent efforts to bar and repatriate children.

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 experiences of Central American immigrants and their participation in U.S. society. Focus on organizational development and strategies and how they intersect with race, gender, and legal status. P/NP or letter grading.

153B. Central American Racial Constructions. (4) (Formerly numbered Chicana and Chicano Studies 153B.) Lecture, four hours. Interdisciplinary, transhistorical, and transnational exploration of indigeneity, diginity, Afro-indigeneity, blackness, mulatage, ladinization, and other racial-gendered constructions among people of and in Central America and how these groups redefine their racial identification and disidentifications in and/or in relation to U.S. P/NP 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, foodways, and sounds as they are transmitted across generations. Lecture, two and one half hours. Required: Gender Studies 10.

153D. U.S. Central American Narratives. (4) (Formerly numbered Chicana and Chicano Studies 153D.) Lecture, four hours. Examination of textile narratives and gendered stories that are actively 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 (re-)imagined homeland. P/NP or letter grading.

154A. Contemporary Issues among Chicanas. (4) (Formerly numbered Chicana and Chicano Studies M154.) Same as Gender Studies M132B.) Lecture, two and one half hours. Required: Gender Studies 10. Overview of conditions facing Chicanas in U.S., including role of race, gender, class in reproduction, employment conditions. Comparative analysis with other Latinas. P/NP or letter grading.

155A. Latinos in U.S. (4) (Formerly numbered Chicana and Chicano Studies M155A.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Examination of history and social conditions 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.

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 contemporary U.S. political system. Topics include historical analysis of Latino immigration and migration; civil rights movement; increases in citizenship, registration, and voting in 1990s. American and Latino political participation. Development, Relief, and Education for Alien Minors (DREAM) Act and subsequent DREAMer movement; and response by Latinos today, with discussion of reasons for recent presidential elections. P/NP or letter grading.

156A. Immigrants, 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. Exploration of immigrant rights movement and examination of development of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on issue of immigrant students in higher education. Examination of challenges facing undocumented immigrant students, and legislative and policy issues that have emerged. Students conduct oral histories, family histories, and community organizers; write poetry and spoken word about immigrant experiences, and work to collectively develop student publication on immigrant students in higher education. P/NP or letter grading.

156B. 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, two hours. Required: course M156A. Expansion 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.

156C. Research on Immigrant Students and Higher Education. (4) (Formerly numbered Chicana and Chicano Studies M156C.) (Same as Asian American Studies M166C and Labor Studies M166C.) Seminar, three hours. Enforced requisites: courses M156A, M156B. Expansion of research conducted by students in courses M156A and M156B involving oral histories, research on immigration/labor/higher education, and evaluation of legislation and legal issues impacting undocumented students. Designed around class project, where students work on showcasing all material collected through research. P/NP or letter grading.

157. 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 el movimiento, including students, workers, artists, 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 movements, community autonomy, police brutality, cultural inclusion, racism, sexism, and class exploitation. Investigation of diverse ideologies, debates, and legacies of Chicano Movement through analysis of Chicana/Chicano motivations for organizing, mobilization, movements, challenges, and articulation of new political subjectivities. P/NP or letter grading.

158. Chicana History. (4) (Formerly numbered Chicana and Chicano Studies M158.) (Same as Gender Studies M166A and Labor Studies M166A.) (Formerly numbered Chicana and Chicano Studies M151A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey lecture course on historical development of Mexican history and people of Mexican descent (Indio-Mestizo-Mulato) north of Rio through 17th, 18th, and 19th centuries, with special focus on labor and politics. Provides integrated understanding of development of Mexican community by inquiry into major formative historical forces affecting community. Social structure, economy, labor, culture, political organization, conflict, inter- and international relations, emphasis on social forces, class, analysis, social, economic, and labor conflict, ideas, dominance, and resistance. Developmental process in Mexican community. Focus on political organization, and social movement. Developments related to historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, research assignments, written examinations, and field research, and submission of paper. P/NP or letter grading.

159B. 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. Seminar lecture course on historical development of Chicano history. P/NP or letter grading.

160. Introduction to Chicana/Chicano Speech in American Society. (4) (Formerly numbered Chicana and Chicano Studies 160.) (Same as Asian American Studies 160.) Lecture, four hours. Survey course presenting (1) basic elements of Chicano language use, including history of Chicano language, types and social functions of Chicano speech (Chicano) including Spanglish, exist language, and multi-lingualism and monolingualism and (2) major social issues associated with language use by Chicanos and other urban ethnic populations. Letter grading.

16A. Latinos: Print Media. (4) Formerly numbered Chicana and Chicano Studies 168A. Lecture, four hours; discussion, one hour. Reading and Review of Spanish-language news media, print, radio, and television in U.S.; providing students for development of academic skills in Spanish. Comparison with Spanish language mass media in other parts of world. Letter grading.

164XP. Oral History: Latino New Immigrant Youth. (5) Formerly numbered 164SL. Seminar, three hours; tutoring, three hours. Theory, methodology, and practice of oral history, together with background information on U.S. history, Chicana and Chicano immigration. Emphasis on oral history and testimonio methods. P/NP or letter grading.

165. Latinos and Latinas in Public Education. (4) Formerly numbered Chicana and Chicano Studies 165L. Lecture, four hours. Examination of linguistics issues pertinent to educational systems, including language inequity, literacy, testing, and socialization, as well as institutional ideologies. Letter grading.

166. Paulo Freire for Chicana/Chicano Classroom. (4) Formerly numbered Chicana and Chicano Studies 166L. Seminar, four hours. Introduction to pedagogy of Paulo Freire and examination of historical and contemporary policies concerning Chicana and Chicano education. Central focus to offer Freirian alternative to answer theoretical, methodological, practical, and policy questions about schooling of Chicanas/Chicanos in U.S. P/NP or letter grading.

M167XP. Taking It to Street: Spanish in Community. (5) Formerly numbered Chicana and Chicano Studies M167SL. Lecture, four hours; fieldwork, three hours. Enforced requisite: course 168A. Intensive study of Hispanic/Latino linguistics and language change, together with background information on Chicano/a and Latino/a social and political movements, in order to help students to use sociolinguistic and rhetorical competencies to analyze and commence various forms of social and political mobilization, with particular emphasis on how to apply them in educational settings. In Progress (168A) and P/NP or letter (167SL). Letter grading.


168B. Latinos: Television News. (4) Formerly numbered Chicana and Chicano Studies 168B. Lecture, four hours. Enforced requisite: course 168A. Study of modal (visual, graphic, spoken, audio, and text) images disseminated by television news programs to learn how news comes to their understanding of Latino involvement in events. Critical visual interpretive acuity through semiotics training and analysis of television news stories. Letter grading.


169B. Xican@ Indigeneity. (4) Formerly numbered Chicana and Chicano Studies 169B. Seminar, four hours. Limited to juniors/seniors. Research seminar organized around readings and engaged discussion of critical topic of interest in field. Exploration of issue, its theoretical implications for field, and practical implications for communities, Addresses Xican@ indigeneity. Exploration of historical and contemporary indigenous character of Xican@ peoples; what it means to be indigenous in U.S. history; various implications for the relationship between cultural and linguistics memories, continuities, losses, changes, revitalization, and reclamation; and indigenous epistemologies, decolonization, and the perspective of Xican@. Final research project required. P/NP or letter grading.

M170XP. Latinos, Linguistics, and Literacy. (5) Formerly numbered Chicana and Chicano Studies 170SL. (Same as Spanish M172XP.) Seminar, four hours; fieldwork, one hour. Enforced requisite: Spanish 100A. In-depth study of various aspects of literacy, programs for adult preliterates, literacy and culture, change to literacy (whole language techniques, Freire’s literacy pedagogy), history of writing systems, phoneme as basis for alphabetic writing, and national literacy and required field project involving Spanish-speaking adults in adult literacy programs. P/NP or letter grading.

171. Humor as Social Control. (4) Formerly numbered Chicana and Chicano Studies 171L. Lecture, four hours. Hegemonic humor, laughter of more powerful people against those with less power. In this case laughter becomes weapon used against Latinos and immigrants. With rise of Latinos in last decade, there have been many ways to assist Anti-Latino hegemonic 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 172L. Lecture, four hours. Culture change theory encompasses such issues as immigration, resistance, colonialism, modernization, urbanization, migration, and acculturation. Examination of methods anthropologists/ethnographers use in studying and analyzing culture change with special focus on Mexican and Mexican American people to clarify social and cultural origins of modern habits and customs and, more importantly, unravel various culture change threads that have shaped Chicana and Chicano social, political, and economic evolution. Indian nation-states, miscegenation, peasantry, expansionism, industrialization, immigration, ethnicity, and adaptation. Field project on some aspect of culture change required. P/NP or letter grading.

M173. Nonviolence and Social Movements. (4) Formerly numbered Chicana and Chicano Studies M173L. (Same as African American Studies M173 and Labor Studies M173.) Lecture, three hours; discussion, one hour. Overview of nonviolence and its impact on social movements both historically and in its present context in contemporary society, featuring lectures, conversations, films, readings, and guest speakers. Exploration of some historic contributions of civil rights struggles and role of nonviolent action through the recollection of particular lessons of nonviolent movements as they impact social change organizing in Los Angeles. P/NP or letter grading.

174AX-174BX. Restoring Civility: Understanding, Using, and Resisting Hegemony. (Formerly numbered Chicana and Chicano Studies 174AX.) Lecture, four hours; discussion, three hours. Course 174AX is enforced requisite 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 (174AX) and P/NP or letter (174BX) grading.

M175. Chicana Art and Artists. (4) Formerly numbered Chicana and Chicano Studies M175L. (Same as Art M184 and World Arts and Cultures M128.) Lecture, four hours. Introduction to Chicana art and artists. Examination of Chicana art. Chicana artists have developed unique experience and identity as artists and Chicanas. Letter grading.

176. Globalization and Transnationalism: Local Historical and Comparative Perspectives. (4) Formerly numbered Chicana and Chicano Studies 176L. Lecture, four hours. Study of cross-cultural and transnational community formation in comparative global perspective, explored both as historical result of and key future actor in localized dynamics of transnationalization in California. Analysis of Chicana experience in California as both highly linked node and localized microcosm of dynamics of globalization that is both affected by as well as influencing transnational scenarios of globalization. Designed to help students develop critical political economy analysis of interplay between globalization and localized transnational dynamics that together are giving meaning to and constructing new social identities and strategies for struggle throughout world. P/NP or letter grading.

CM177. Latino Social Policy. (4) Formerly numbered Chicana and Chicano Studies CM177. (Same as Public Affairs M142.) Lecture, three hours; discussion, one hour (when scheduled). Examination of social welfare of Latinos (Chicanos, Puerto Ricans, and Cubans) in U.S., through historical 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 C277. Letter grading.


179. Language Politics and Policies in U.S.: Comparative and Historical Perspectives. (4) Formerly numbered Chicana and Chicano Studies 179L. Lecture, four hours. Historical overview of national and institutional language policies, especially schooling, in U.S. as context to understanding social, legal, and political constraints on bilingualism. Papers on role and policy and planning, history of general and educational language policies in U.S., demographic profile of language, bilingual education, and social and political implications for U.S. school policy issues in U.S. Comparisons with selected international cases. Concurrently scheduled with course C274. P/NP or letter grading.

180. Chicana/Chicano Schooling and Community Activism (Formerly numbered Chicana and Chicano Studies 180.) Seminar, four hours. Overview of Chicana/Chicana schooling issues in U.S., with special emphasis on several important historical events that exemplify struggle for educational justice and equity that affected Chicana/Chicana education—Mendez versus Westminster (1947) segregation case and 1968 high school Chicana/Chicana student walkouts. Through oral history projects, documenta- tion of legacy of Sylvia Mendez, who experienced segregation in one Mexican school in 1940s, Sal Castro, Chicano teacher and central figure in 1968 walkouts, and Chicano Youth Leadership Conference (CYLC). Examination of how historical, social, and political forces have impacted Chicana/Chicana educational experiences. P/NP or letter grading.

M196C. Beyond Mexican Mural: Muralism and Community Development. (4) (Formerly numbered Chicana and Chicano Studies M186C). (Same as Art M186C and World Arts and Cultures M125C.) Studio/lecture, six hours. Requisites: courses M186B, M186BL. Corequisite: course M186CL. 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 feedback on each other’s work. Culminates in public space differently. P/NP or letter grading.


M186A. Beyond Mexican Mural: Beginning Muralism and Community Laboratory. (4) (Formerly numbered Chicana and Chicano Studies M186A.) (Same as Art M186A and World Arts and Cultures M125A.) Studio/lecture, six hours. Requisite: 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. Students research, design, and work with community participants. P/NP or letter grading.

M186AL-M186BL-M186CL. Beyond Mexican Mural: Muralism and Community Laboratory. (4-4-4) (Formerly numbered Chicana and Chicano Studies M186AL-M186BL-M186CL.) (Same as Art M186AL-M186BL-M186CL.) Studio/lecture, six hours. Requisite: course M186AL. Laboratory, four hours. Requisite: course M186AL. Corequisite: course M186B; M186CL. Laboratory, two hours. Requisite: course M186B. Corequisite: course M186C. Advanced. Laboratory, two hours. Requisite: course M186B. Corequisite: course M186C.

M186B. Beyond Mexican Mural: Intermediate Muralism and Community Development. (4) (Formerly numbered Chicana and Chicano Studies M186B.) (Same as Art M186B and World Arts and Cultures M125B.) Studio/lecture, six 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 states of production to full scale and community approval. P/NP or letter grading.

M187. History of U.S./Mexican Borderlands. (4) (Formerly numbered Chicana and Chicano Studies 184.) Lecture, four hours. Survey of historic and geographic diversity of Chicana/Chicano identity and culture, with emphasis on regional communities of California, New Mexico, and Texas in Spanish/Mexican borderlands as situated within U.S. national context. P/NP or letter grading.

M150. Whose Monument Where?: Course on Public Art. (4) (Formerly numbered Chicana and Chicano Studies M150.) (Same as Art M150 and World Arts and Cultures M125.) Lecture, four hours. Recommended corequisite: course M186B, or M186CL. Examination of public monuments in U.S. as basis for cultural critique and of American values from perspective of artist. Use of urban Los Angeles as textbook supplemented by workshops, seminars, and readings. 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.

M157B. Colonial Latin American Art. (4) (Formerly numbered Chicana and Chicano Studies M157B.) (Same as Art History M151E and World Arts and Cultures M125B.) Lecture, four hours. Requisites: courses M186A, M186AL. Corequisite: course M186CL. Continuation of project through installation, documentation, and feedback on each other’s work. Culminates in public space differently. P/NP or letter grading.

M187C. Aztec Art. (4) (Formerly numbered Chicana and Chicano Studies M187C.) (Same as History M151E and Urban Planning M187.) Lecture, four hours. Intro-duction to history of architecture and urbanism in America from fabled cities of Aztec empire to barrios of 21st-century Los Angeles and Miami. Emphasis on role of cities in Latin/Latino experience and uses of architecture and city planning to forge new social identities rooted in historical experiences of conquest, immigration, nationalization, and revolution. P/NP or letter grading.

189. Advanced Honors Seminars. (1) (Formerly numbered Chicana and Chicano Studies 189.) Seminar, three hours. Limited to juniors/seniors. Individual study organized around readings and engaged discussions of topical issues in light of available sources. P/NP grading. May be repeated for credit. P/NP or letter grading.

190. Research Colloquia in Chicana/o and Central American Studies. (2) (Formerly numbered Chicana and Chicano Studies 190.) Seminar, two hours. May be repeated for credit. May be applied toward departmental major or minor elective requirements. May be repeated for credit. P/NP or letter grading.

191. Envisioned: Comparative Approaches to Community and Corporate Internships. (4) (Formerly numbered Chicana and Chicano Studies 191.) Enrolled students may pursue community or corporate internships to gain hands-on experience in community or corporate settings coordinated through Center for Community Education, Development, and Empowerment. May be repeated for credit. P/NP grading.

192A. Undergraduate Practicum in Chicana/o and Central American Studies. (4) (Formerly numbered Chicana and Chicano Studies 192A.) Internship in supervised setting in community education, development, and empowerment. May be repeated for credit. P/NP grading.

193. Readings/Speaker Series Seminars: Chicana/o and Central American Studies. (1) (Formerly numbered Chicana and Chicano Studies 193.) Seminar, one hour. May be repeated for credit. May be applied toward departmental major or minor elective requirements. May be repeated for credit. P/NP or letter grading.

194. Research Group Seminars: Chicana/o and Central American Studies. (2) (Formerly numbered Chicana and Chicano Studies 194.) Seminar, one hour. May be repeated for credit. May be applied toward departmental major or minor elective requirements. May be repeated for credit. P/NP grading.

195. Community Internships in Chicana/o and Central American Studies. (4) (Formerly numbered Chicana and Chicano Studies 195.) Tutorial, two hours; field placement, eight hours. Limited to juniors/seniors. Internship in supervised setting in community education, development, and empowerment. 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.

M195CE. Comparative Approaches to Community and Corporate Internships. (4) (Formerly numbered Chicana and Chicano Studies 195CE.) Enrolled students may pursue community or corporate internships to gain hands-on experience in community or corporate settings coordinated through Center for Community Education, Development, and Empowerment. May be repeated for credit. May be applied toward departmental major or minor elective requirements. May be repeated for credit. P/NP grading.
Graduate Courses

200. Theoretical Paradigms in Chicana/o and Central American Studies. (4) (Formerly numbered Chicana and Chicano Studies 100.) 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 key theoretical areas—coloniality, nationhood, inequality studies, and gender and sexualities. S/U or letter grading.

201. Activist Scholarship and Intersectional Methodologies Seminar. (4) (Formerly numbered Chicana and Chicano Studies 201.) Seminar, three hours. Limited to graduate students. Examines critical cultural, epistemologies, and schools of thought, that employ intersectional methodologies as basis for social action research—Chicana/Chicano cultural studies, Chicana feminism, queer studies, and critical legal studies. S/U or letter grading.

202. Qualitative Methods in Study of Chicanas/Chicanos and Latinas/Latinos. (4) (Formerly numbered Chicana and Chicano Studies 202.) Seminar, three hours. Limited to graduate students. Methods course that takes students through entire empirical research cycle. Students required to collectively develop interrating research questions, conduct qualitative research, analyze original data, and write final papers that contextualize findings within existing social scientific literature. To answer research questions, students select from theoretical frameworks discussed in readings. S/U or letter grading.

206. Politics of Hood. (4) (Formerly numbered Chicana and Chicano Studies 206.) Same as Public Policy 2321.) Seminar, three hours. Limited to graduate students. Examines consequences 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.

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 in U.S. Focus on production of space, geographic appropriation, and anti-racist, place-based struggles. Study foregrounds intersections with Chicana and Chicano studies and racial geographies, and contextualizes adverse effects. S/U or letter grading.

208. Research Design and Methods in Chicana/o and Central American Studies. (4) (Formerly numbered Chicana and Chicano Studies 208.) Seminar, four hours. Research design and methodologies in Chicana/o studies. ChiCan perspective. Study of knowledge production and scholarship in Chicana/o studies, how it can be done, and how it can be evaluated. Includes critical frameworks with an emphasis on Chicana/o methodological issues, 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. Examination of approaches and theories that underpin service learning and exploration of ways in which service learning can be utilized in variety of academic disciplines (second and foreign language instruction, education, ethnic studies, labor studies, women’s studies, public health, literature, public art, political science, etc.). Creation of research proposal for use of service learning as model or hypothesis in academic discipline of student’s choice. S/U or letter grading.

210. Queer of Color Genealogies. (4) (Formerly numbered Chicana and Chicano Studies 210.) Seminar, three hours. Focus on community-making by those multiply marginalized by categories of race, gender, class, citizenship, and gender nonconformity and disposed of normative power making. Study genealogies of queer of color communities through alternative archives of desire, love, affect, memory, performance, and politics. Reading about queer of color genealogies and practice, and how oral history, cultural practices, and forms of social documentation methodologies. S/U or letter grading.

211. Immobilizing Immigrants: Detention and Deportation in U.S. (4) (Formerly numbered Chicana and Chicano Studies 211.) Seminar, three hours. Historical overview of U.S. immigration policies and historical and political contexts that led to the incarceration of millions of immigrants. 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 scheduled). Special emphasis on immigrants, and analysis of how race, class, and gender help shape experiences of Latina/Latino families in U.S. society and how these intersections also help shape individual experiences within families. Examination of family roles, family togetherness, and different roles in shaping these experiences. Discussion of roles of structure and space for agency in each context. Concurrently scheduled with course C217. 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. 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. Attention to within Chicanas and dominant society. Attention to Anglo-European and Third World women. Concurrently scheduled with course CM110. S/U or letter grading.

C215. Transnational Women Organizing in Americas. (4) (Formerly numbered Chicana and Chicano Studies CM215.) Lecture, four hours. Feminist theories of transnational organizing. Examination of gender and race as central to processes of globalisation and economic restructuring. Examines encompassed in transnational power relations. Exploration of how questions of race and gender influence global economic policies and actions of women and their communities. In time when people, capital, cultures, and technologies cross national borders with growing frequency, examination of process of accelerated globalization has been linked to labor and migration, environmental degradation, questions of diaspora, sexuality, and cultural displacement, as well as growing global militarization. Problems and issues cross-cutting national and political responses envisioned through transnational organizing. Concurrently scheduled with course CM147. Letter grading.

216. Product of Immigrant Illegaliy. (4) (Formerly numbered Chicana and Chicano Studies 216.) Seminar, three hours. Limited to graduate students. Based mostly on U.S., exploration of dynamic field of illegality studies. Study of history of immigration policies and government practices, empirical and theoretical contributions to understand immigration illegality is produced. S/U or letter grading.

217. U.S. Central American Racial Constructs and Cultural Diversity. (4) (Formerly numbered Chicana and Chicano Studies 217.) Lecture, three hours. Limited to graduate students. Exploration of indigenous, indigenity, Afro-indigeneity, Blackness, mestizaje, mulattaje, ladinization and other racialized gendered constructs in Central America by critically engaging scholarly work, census data, and oral histories to understand Central American communities in U.S. Analysis on their origins and how these racialized stratifications were naturalized through cultural practices. Engages cultural practices as strategies of survival for populations working against historical erasure especially enacted by nation-state. For example, why is
238. New Directions in Chicana and Latina Art. (Formerly numbered Chicana and Chicano Studies 238.) Seminar, three hours. Focus on current state and future of research, teaching, and museum practice in Chicana and Latina art history. Examination of various topics, including Chicana and Latina contributions to art post-1968; comparative indigeneities; and transnational Chicana and Latina art history. S/U or letter grading.

239. Critical Methods for Research and Presentations. (4) 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 compelling researcher 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 files and add animations. Students learn how to use Prozi as oral presentation software and archiving method for gathering and organizing visual materials on their research. Each student receives personalized guidance based on specificity of their research, for example, mapping software, or video editing for oral history projects, or subtitling translating for documentary videos. Students learn how to use available applications such as 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 talk using their original animated images and short videos. S/U or letter grading.

240. U.S. Central Americans Making Art and Memory. (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. Thru contemporary Chicana/o and Latino/o writers, critical theory of weekly writing assignments. Emphasis on narrative techniques such as characterization, plot, conflict, setting, point of view, and dialogue, and magical realism in Chicana/o and Latina/o writing. Some attention to process of manuscript preparation, 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. Limited to graduate students. Some attention to process of manuscript preparation, public reading, and publication. Concurrently scheduled with course CM135. Letter grading.

245. Latinx Noir and City at Night. (4) (Formerly numbered Chicana and Chicano Studies 245.) Seminar, three hours. Limited to graduate students. Some attention to process of manuscript preparation, public reading, and publication. Concurrently scheduled with course CM135. Letter grading.

258. Laughter, Political Humor, and Social Control. (4) (Formerly numbered Chicana and Chicano Studies 258.) Seminar, three hours. Limited to graduate students. Examinations of whiteness in American society. Readings and discussions trace evolution of white identity and explore its significance to historical construction of race class in American history. Concurrently scheduled with course CM135. Letter grading.

257. Chicana/o and International Marxism. (4) (Formerly numbered Chicana and Chicano Studies 257.) (Same as Public Policy M232.) Seminar, three hours. Examination of relationship between Marxism, intersectionality, and early-Chicana/o Manist 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.

258. Laughter, Political Humor, and Social Control. (4) (Formerly numbered Chicana and Chicano Studies 258.) Seminar, three hours. Limited to graduate students. Examinations of whiteness in American society. Readings and discussions trace evolution of white identity and explore its significance to historical construction of race class in American history. Concurrently scheduled with course CM135. 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 fig-
C724. Language Politics and Policies in U.S.: Comparative History. (4) (Formerly numbered Chicana and Chicano Studies C274.) Lecture, four hours. Historical overview of national and institutional language policies, especially schooling, in U.S. as context to understand and critique policies and practices of bilingualism. Definitions and development of language policy and planning, history of general and educational language policies in U.S., demographic profile of language and current language and educational policy issues in U.S. Comparisons with selected international cases. Concurrently scheduled with course CM179. S/U or letter grading.

C726. 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 Chicano/Latino health status through life expectancy, causes of death, diseases, services utilization, provider supply, and risk behaviors within demographic/immigration changes. Binarional review of health effects in U.S. and Mexico. Concurrently scheduled with course CM106. Letter grading.

C727. 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 CM177. Letter grading.

M278. Immigration Policy and Activism. (4) (Same as Public Policy M230.) Seminar, three hours. Highlighting roles of race, gender, sexuality, and citizenship status, exploration of how immigrant rights activists organize for legalization and against deportation, border militarization. Letter grading.

279. Globalization and Transnationalism. (4) (Formerly numbered Chicana and Chicano Studies M279.) Lecture, four hours. Study and historical overview of national and institutional language policies, especially schooling, in U.S. as context to understand and critique policies and practices of bilingualism. Definitions and development of language policy and planning, history of general and educational language policies in U.S., demographic profile of language and current language and educational policy issues in U.S. Comparisons with selected international cases. Concurrently scheduled with course CM179. 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 critical topic of interest in field. Exploration of issue, its theoretical implication for field, and practical applications for communities. Topics vary according to participating faculty members. Final research project may be repeated for credit with consent of director of graduate studies. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) (Formerly numbered Chicana and Chicano 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.

405. Learner-Centered Teaching in Chicana/o and Central American Studies. (4) (Formerly numbered Chicana and Chicano Studies 405.) Seminar, four hours. Designed for graduate students and required of all new department teaching apprentices. Interactive forum for discussing learner-centered teaching in Chicana/Chicano studies. Exploration of diverse classroom strategies and pedagogical techniques specific to interdisciplinary field. Topics include preparing for discussion sections, promoting discussion among students, using class websites, office hours, grading, and campus resources. May be repeated once for credit. S/U grading.

505. Research and Preparation for MA Thesis. (4 to 12) (Formerly numbered Chicana and Chicano Studies 505.) Tutorial, to be arranged. Directed individual research and study in area related to Chicana/Chicano studies or topics not offered as regular courses. May be arranged individually by student and instructor. May be repeated for maximum of 12 units. S/U grading.

506. Directed Individual Study or Research. (4 to 12) (Formerly numbered Chicana and Chicano Studies 506.) Tutorial, to be arranged. Directed individual research and study in area related to Chicana/Chicano studies or topics not offered as regular courses. May be arranged individually by student and instructor. May be repeated for maximum of 12 units. S/U or letter grading.

507. Preparation for PhD Qualifying Examinations. (2 to 12) (Formerly numbered Chicana and Chicano Studies 507.) Tutorial, to be arranged. Limited to departmental graduate students. Reading and preparation for course work requirements. May be repeated for a maximum of 12 units. S/U grading.

509. Research for PhD Dissertation. (4 to 12) (Formerly numbered Chicana and Chicano Studies 509.) Tutorial, to be arranged. Limited to PhD students who have qualified for examination. Research for and preparation of PhD dissertation under direction of dissertation committee chair. May not be applied toward PhD degree requirements. May be repeated for a maximum of 8 units. S/U grading.

CIVIC ENGAGEMENT
See Community Engagement and Social Change

CIVIL AND ENVIRONMENTAL ENGINEERING
Henry Samueli School of Engineering and Applied Science

5731 Boelter Hall
Box 951593
Los Angeles, CA 90095-1593

Civil and Environmental Engineering
310-825-1851
Department e-mail
Ertugrul Tacioglu, 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
J.R. DeShazo, PhD
Mekonnen Gebremichael, PhD
Eric M.V. Hoek, PhD
Jennifer A. Jay, PhD
Jiann-Wen Ju, PhD, PE
Dennis P. Lettenmaier, PhD, NAE
Enrique López-Drogo, PhD
Shally Mahendra, PhD
Ertugrul Tacioglu, PhD
Ali Mosleh, PhD, NAE
Sriram Narasimhan, PhD
Gaurav Sant, PhD
Michael K. Stenstrom, PhD, PE
Jonathan P. Stewart, PhD, PE
Ertugrul Tacioglu, PhD
William W.-G. Yeh, PhD, NAE (Richard G. Newman AECOM Endowed Professor of Civil Engineering)
Jian Zhang, PhD

Professors Emeriti
Stanley B. Dong, PhD, PE
Lewis P. Felton, PhD
Michael E. Fourney, PhD, PE
Richard L. Perrine, PhD
Moshe F. Rubinstein, PhD
Keith D. Stolzenbach, PhD
Mladen Vucetic, PhD

Associate Professors
Mathieu Bauchy, PhD
Henry V. Burton, PhD, SE (Englekirk Presidential Endowed Professor of Structural Engineering)
The Civil Engineering major is a designated capstone major. In each of the major field design courses, students work individually and in groups to complete design projects. To do so, they draw on their prior coursework, research the needed materials and possible approaches to creating their device or system, and come up with creative solutions. This process enables them to integrate many of the principles they have learned previously and apply them to real systems. In completing their projects, students are also expected to demonstrate effective oral and written communication skills, as well as their ability to work productively with others as part of a team.

**Learning Outcomes**
The Civil Engineering major has the following learning outcomes:

- Understanding of, and ability to apply, basic mathematical and scientific concepts that underlie the field
- Ability to contribute meaningfully to design projects
- Critical thinking skills, problem-solving abilities, and familiarity with computational procedures essential to the field
- Ability to work productively as a member of a team
- Effective oral and written communication skills

**Preparation for the Major**
Required: Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 1, M20 (or Computer Science 91); Mathematics 31A, 31B, 32A, 32B, 33A, 33B (or Mechanical and Aerospace Engineering 82); Physics 1A, 1B, 1C, 4AL; one natural science course selected from Civil and Environmental Engineering 58XP, Earth, Planetary, and Space Sciences 3, 15, 16, 17, 20, Environment 12, Life Sciences 7A, Microbiology, Immunology, and Molecular Genetics 5, 6, or Neuroscience 10.

**The Major**
Required: Chemical Engineering 102A or Mechanical Aerospace Engineering 105A, Civil and Environmental Engineering 91 (or Mechanical and Aerospace Engineering 91), 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, C112; 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, C123 (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 Samueli school section in College and Schools.

**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.


**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 applied 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 Masters of Science degree has the following areas of study: civil engineering materials, environmental and water resources engineering, geotechnical engineering, structural mechanics, structural/earthquake engineering, structures and civil engineering materials, transportation engineering.

The Doctor of Philosophy degree has the following major fields or subdisciplines: civil engineering materials, environmental engineering, geotechnical engineering, hydrology and water resources engineering, structural mechanics, structural/earthquake engineering, transportation engineering.

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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. Fluid 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.


S5SL. Climate Change, Water Quality, and Ecosystem Functioning. (5) Lecture, four hours; service learning, two hours; outside study, nine hours. Science related to climate change, water quality, and ecosystem health. Topics include carbon and 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 analysis, free-body forces, and motion. Free-body diagrams and equilibrium, internal loads and equilibrium in trusses, frames, and beams. Planar and nonplanar systems, distributed forces, determination of internal forces, shear, and moment diagrams, and axial force diagrams. Letter grading.

97. Variable Topics in Civil and Environmental Engineering. (1-2) 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.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), six hours. Research and laboratory projects. Letter 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 rigid bodies 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 fundamental understanding of modeling and numerical simulations of civil engineering materials. Largely focused 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.


110. Introduction to Probability and Statistics for Engineers. (4) Lecture, four hours; discussion, one hour (when scheduled); outside study, six hours. Requisites: Mathematics 32A, 33A. Recommended: course M20. Introduction to fundamental concepts and applications of probability and statistics in civil engineering, with focus on concepts 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 analysis, 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: Mathematics 32A, 33A. Corequisite: course M20. Introduction to fundamental concepts and applications of probability and statistics in civil engineering, with focus on concepts 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 analysis, probability distributions, functions of random variables, estimating parameters from observational data, regression, hypothesis testing, and Bayesian concepts. 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 formation, classification, physical and mechanical properties, soil classification, earth pressures, consolidation, and shear strength. Letter grading.

120L. Soil Mechanics Laboratory. (4) (Formerly numbered 128LL.) Lecture, one hour; laboratory, six hours; outside study, five hours. Requisite or corequisite: 120. Laboratory experiments to be performed by students to obtain soil parameters required for assigned design problems. Soil classification, grain size distribution, Atterberg limits, specific gravity, compaction, expansion index, consolidation, shear strength determination. Design 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: course 120. Design methods for foundations and earth structures. Site investigation, including evaluation of soil properties for
135L. Structural Design and Testing Laboratory. (4) Lecture, two hours; laboratory, five hours; outside study, five hours. Requisites: courses M20, 135A. Limited enrollment. Computer-aided optimum design, construction, instrumentation, and test of small-scale model structures. Use of computer-based data acquisition and interpretation systems for comparison of experimental and theoretically predicted behavior. Letter grading.

137L. Structural Dynamics Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisite: course 135B. Basic structural dynamics: numerical methods for civil engineering students. Elastic force and forced vibrations of single degree of freedom systems. Use of computer-based data acquisition and interpretation systems for single and multidegree of freedom systems. Axial, bending, and torsional vibration of beams. Concurrently scheduled with course C239. Letter grading.

137. Structural Dynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135B. Basic structural dynamics: numerical methods for civil engineering students. Elastic force and forced vibrations of single degree of freedom systems. Use of computer-based data acquisition and interpretation systems for comparison of experiment and theoretically predicted behavior. Letter grading.


130. Elementary Structural Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135A. Overview of stress and strain, phenomenological material behavior, extension, bending, and transverse shear stresses in beams with general cross-sections, shear center, deflection of beams, torsion of beams, warping, column instability and failure, and columns. Letter grading.

135A. Elementary Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses M20 (or Computer Science 33A), and Mechanical and Aerospace Engineering 103). Lecture analysis of statics and strength of materials, 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 methods; matrix displacement method; analysis concepts based on theorem of virtual work; moment distribution, beam bending, and columns. Letter grading.

M135C. Introduction to Finite Element Methods. (4) (Same as Mechanical and Aerospace Engineering M168). Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 135A. Analysis of truss and frame structures using matrix methods; matrix force methods; matrix displacement method; analysis concepts based on theorem of virtual work; moment distribution, beam bending, and columns. 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. International Building Code (IBC) and ASCE 7 dead, live, wind, and earthquake loads. Design of reinforced concrete and structural steel buildings. Computer modeling, analysis, and performance evaluation of buildings. Letter grading.

147. Design and Construction of Tall Buildings. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 135B, 141, 190. Role of structural engineer, architect, and other design professionals in design process. Case studies in architectural and structural design of tall buildings. Field trips. Letter grading.

148. Wood and Timber Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 135B, 135A. Properties and behavior of wood and wood products, analysis and design of wood and timber structural members subjected to flexural, shear, and axial stresses;.Connections, fasteners, and dimensioned wood frame construction and wood shear walls and diaphragms. Letter grading.

150. Introduction to Hydrology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course M20 (or Computer Science 33A), and Mechanical and Aerospace Engineering 103. Introduction to hydrologic cycle and relevant atmospheric processes, water and energy balance, radiation, precipitation formation, infiltration, evaporation, vegetation, hydrological cycle, ground and surface water, and flood processes. Letter grading.

151. Introduction to Water Resources Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses M20, Mechanical and Aerospace Engineering 103, and Environmental Science 205. Recommended: courses 103, 110. Principles of hydraulics, flow of water in open channels and pressure conduits, reservoirs and dams, hydraulic machinery, hydroelectric 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 and hydrologic systems, including stormwater management systems, wastewater collection systems, and construction of wetlands. Emphasis on practical design components, including reading/interpreting professional drawings and documents, environmental impact reports, permitting, agency coordination, and engineering ethics. Project-based course includes analysis of alternative designs, use of engineering economics, and preparation of written engineering reports. Letter grading.

153. Introduction to Environmental Engineering Science. (4) Lecture, four hours; discussion, one hour (when scheduled); outside study, seven hours. Recommended requisite: Mechanical and Aerospace Engineering 103, or Chemical and Environmental Engineering 190. Water, air, and wastewater treatment processes, water, air, and waste disposal, air pollution, global environmental problems. Field trip. Letter grading.

154. Chemical Fate and Transport in Aquatic Environments. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 153. Fundamental physical, chemical, and biological principles governing movement and fate of chemicals in surface waters and groundwater. Topics include physical transport in various aquatic environments, air-water exchange, acid-base equilibria, oxidation-reduction chemistry, chemical sorption, bio-degradation, and bioaccumulation. Practical quantitative problems solved considering both reaction and transport of chemicals in environment. Letter grading.

155. Environmental Impact Assessment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended: courses 150, 151, 190. Analysis and design of hydraulic and hydrologic systems, including stormwater management systems, wastewater collection systems, and construction of wetlands. Emphasis on practical design components, including reading/interpreting professional drawings and documents, environmental impact reports, permitting, agency coordination, and engineering ethics. Project-based course includes analysis of alternative designs, use of engineering economics, and preparation of written engineering reports. Letter grading.

156. Environmental Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 150, 151, 190. Analysis and design of hydraulic and hydrologic systems, including stormwater management systems, wastewater collection systems, and construction of wetlands. Emphasis on practical design components, including reading/interpreting professional drawings and documents, environmental impact reports, permitting, agency coordination, and engineering ethics. Project-based course includes analysis of alternative designs, use of engineering economics, and preparation of written engineering reports. Letter grading.
155. Unit Operations and Processes for Water and Wastewater Treatment. (4) Lecture; four hours, discussion; two hours, outside study, six hours. Requisite: course 153. Biological, chemical, and physical methods used to modify water quality. Fundamentals of phenomenon design of engineered systems for water and wastewater treatment systems. Field trip. Letter grading.

156A. Environmental Chemistry Laboratory. (4) Lecture; four hours; laboratory; four hours; outside study; six hours. Concurrently scheduled with course 156. Basic laboratory techniques in analytical chemistry related to water and wastewater treatment. Selected environmental engineering experiments include gravimetric analysis, titration spectrophotometry, redox systems, pH and electrical conductivity. Concepts to be applied to analysis of real water samples. Letter grading.

156B. Environmental Engineering Unit Operations and Processes Laboratory. (4) Lecture; two hours; laboratory; six hours; outside study; four hours. Requisites: Chemistry 20A, 20B. Characterization and analysis of typical natural waters and wastewaters for inorganic and organic constituents. Selected experiments include analysis of solids, nitrogen species, oxygen demand, and chloride residual, that are used in unit operations. Other experiments include reaction engineering (aeration, gas stripping, coagulation/flocculation, and membrane separation. Letter grading.

157A. Hydrologic Modeling. (4) Lecture; four hours; discussion; two hours, outside study; six hours. Enforced prerequisite: course 250 or 251. Introduction to hydrologic modeling. Topics selected from areas of (1) open-channel flow, including one-dimensional steady flow and unsteady flow, (2) pipe flow and water distribution systems, (3) rainfall-runoff modeling, and (4) groundwater flow and contaminant transport modeling, with focus on use of industry and/or research standard models with locally relevant applications. Letter grade only.

157B. Design of Water Treatment Plants. (4) Lecture; four hours; discussion; two hours; outside study; six hours. Requisites: courses 155, 190. Water-quality standards and regulations, overview of water treatment plants, design of unit operations, predesign of water treatment processes, water quality regulation, and treatment plant operation. Lecture 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, detailed design review of existing plants, process control, and cost estimation. 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 processes, water resources, and infrastructure. Letter grading.

157T. Coastal Engineering. (4) Lecture; four hours; discussion; two hours; outside study; six hours. Requisites: course 151 and Mechanical and Aerospace Engineering 101 or 102. General characteristics of coastal water systems (climate variability, storms, sea level rise, resilience), surface gravity waves (characteristics, transformation, spectra), coastal processes (overtopping, erosion, flooding, and their effects), beach and dune protection (with nourishment, berms, nature-based infrastructure), coastal monitoring. Concurrently scheduled with course C258. Letter grading.

159. Green Infrastructure. (4) Lecture; four hours; outside study; six hours. Requisites: courses 150, 153. Overview of fundamental science, engineering, and ecological principles to designing green infrastructure for stormwater management, urban drainage systems, and climate mitigation and adaptation. Current practices, performance engineering calculations to calculate its performance, and develop critical thinking skills needed to design innovative or futuristic green infrastructure that not only mitigate adverse impact of climate change, but also remain resilient under extreme weather conditions expected due to climate change. Concurrently scheduled with course C259. Letter grading.

164. Sustainable Waste Management. (4) Lecture; four hours; discussion; two hours; outside study, six hours. Requisite: course 153. Introduction to environmental engineering processes related to solid and hazardous waste management and disposal. Some of which are hazardous, is integral part of infrastructure development, and it is required to achieve environmental sustainability. Study of all aspects of hazardous material management, recycling, and use of waste management technologies with particular emphasis on reuse of some wastes for alternative applications or energy production. Students are expected to integrate economic, social, and environmental considerations. Unification and correlation of different variables that influence performance evaluation and highlight their relevance in pavement design. Concurrently scheduled with course C282. Letter grading.

185. Transportation Systems Analysis. (4) Lecture; four hours; outside study, eight hours. Requisite: course 180. Transportation researchers and practitioners are motivated by desire to explain 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 predict these intricate interactions and understanding the essential nature of transportation systems to analyze and optimally design such systems is needed more than ever. Introduction to fundamental concepts, methodology, and principles of transportation systems analysis. Includes two modules, each of which focuses on one level of system analysis: traveler behavior and network. Concurrently scheduled with course C285. Letter grading.

186. Intelligent Transportation Systems. (4) Lecture; four hours; outside study, eight hours. Requisite: course 180. Introduction to basic elements of intelligent transportation systems (ITS), focusing on technological, social, and policy 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 exchange, and cyber security for ITS, and other smart mobility technologies. Concurrently scheduled with course C286. Letter grading.

188. Special Courses in Civil and Environmental Engineering. (1 to 8) Seminar, two to eight hours. Graduate students taught on experimental or temporary basis, under direction of qualified instructors. Title subject to be arranged (when scheduled); outside study to be arranged. Special topics in civil engineering for undergraduate students taught on experimental or 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; outside study, three hours. Requisite: one course from 121, 142, 141, 151, 156 (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 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 with different seminar topics. Letter grading.

195. Directed Research in Civil and Environmental Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation, including laboratory or field work, culminating in a senior thesis or report. 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

200. 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. S/U grading.

C204. Structure, Processing, and Properties of Civil Engineering Materials. Lecture, four hours; discussion, two hours; outside study, six hours. Discussion of aspects of cement and concrete materials, including manufacture of cement and production of concrete. Constitutive relations 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 C104. Letter grading.

C205. Structure and Properties of Amorphous Civil Engineering Materials. Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 91 or Mechanical and Aerospace Engineering 101, Chemistry 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 practical examples and applications. By course end, students are expected to be able to independently run simulations and analyze data relevant to targeted problems. Concurrently scheduled with course C106. Letter grading.

C211. Machine Learning and Artificial Intelligence for Civil Engineering. 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 practical examples and applications. By course end, students are expected to be able to independently run machine learning analysis. Concurrently scheduled with course C111. Letter grading.


223. Advanced Geotechnical Engineering. (4) Formerly numbered 223.) Lecture, two hours; active learning, two hours; discussion, two hours; outside study, eight hours. Analysis of stability, analysis, including limit equilibrium procedures, finite element method, seepage analysis, and advanced topics such as rapid drawdown, construction of embankments on sloping ground, and cyclic soil behavior. Lateral Earth retention systems including gravity walls and excavation support systems. Advanced analysis methods and design project involving real landslide problems. Impacts on professional geotechnical engineer documents such as proposals, work acknowledgements, figures, plans, and reports. Concurrently scheduled with course C123. Letter grading.


225. 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 interaction, structure-structure interaction, including inertial and kinematic 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 geotechnical principles to environmental problems. Topics include environmental regulations, geotechnical properties of geosynthetics, solid waste landfill, subsurface barrier walls, and disposal of high water content materials. Letter grading.

227. Numerical Methods in Geotechnical 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 constitutive modeling based on elasticity and plasticity. Emphasis on numerical applications and identification of modeling concerns such as instability, bifurcation, nonuniqueness, and nonconvergence. Letter grading.

228. Engineering Geology: Geologic Principles for Engineers. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Engineering geology involves interpretation, evaluation, and application of geologic information and data to civil works. Topics include characterization and classification of soil and rock units. Relationships developed between landforms, active, past, and ancient geologic processes, ground and surface water, and properties of soil and rock. Landform changes occur in response to dynamic processes, including changes in climate, slope formation, fluvial (river) dynamics, coastal dynamics, and deep-seated processes like volcanic and tectonic. Examination of geological and economic evaluation and analysis of effects of geologic processes to predict their potential effect on land use, development, public health, and public safety. Letter grading.

M230A. Linear Elasticity. (4) (Same as Mechanical and Aerospace Engineering M256A.) Lecture, four hours; outside study, eight hours. Requisite: Mechanical and Aerospace Engineering 156A or 166A. Linear elasticity. Constitutive strain-tensor; Cauchy stress tensor; strain energy; equilibrium equations; linear constitutive relations; plane elastostatic problems, holes, corners, inclusions, cracks; three-dimensional problems of Kelvin, Boussinesq, and Cerrutti. Introduction to boundary integral equation method. Letter grading.

M230B. Nonlinear Elasticity. (4) (Same as Mechanical and Aerospace Engineering M256B.) Lecture, four hours; outside study, eight hours. Requisite: course 230A. Introduction of defined spatial coordinates, deformation gradient tensor, nonlinear and linear strain tensors, strain displacement relations; balance laws, Cauchy and Piola stresses, Cauchy-Green strains; hyperelasticity; thermoelasticity; linearization of field equations; solution of selected problems. 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 shells. Energy methods; free vibrations; membrane theory of shells; axisymmetric deformations of cylindrical and spherical shells, including bending. Letter grading.


236A. 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; virtual work theorem, virtual forces, and displacements; theorems on stationary value of total and complementary potential energy, minimum total potential energy, Maxwell/Betti principle. Effects of approximations, introduction to finite element analysis. Letter grading.

235B. Finite Element Analysis of Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 130, 235A. Direct energy methods: derivatives of potential energy. 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; outside study, eight hours. Requisite: course 235B. Classification of nonlinear effects; material nonlinearities; conservative, nonconservative material behavior; geometric nonlinearities, Lagrangian, Eulerian description of motion; finite element methods in geometrically nonlinear problems; postbuckling behavior of structures; small strain finite elements; incremental, iterative, programming methods. Letter grading.


M237A. Dynamics of Structures. (4) (Same as Mechanical and Aerospace Engineering M256A.) Lecture, four hours; outside study, eight hours. Requisite: course 130 or 135B. Classical beam dynamics; historical, material and mathematical prerequisites. Course 137. Principles of dynamics. Determination of normal modes and frequencies by differential and integral equation solutions. Transient and steady state re-
sponse. Emphasis on derivation and solution of gov-
erning equations using matrix formulation. Letter grading.

238. Computational Solid Mechanics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 235B. Advanced finite element and meshfree methods or solid mechanics. Stability and consistency in temporal discretization of para-
bolic and hyperbolic systems. Analysis of numerical dissipation and dispersion. Multifield variational princi-
bles for continuum problems. Meshfree methods: approxima-
tion theories, Galerkin meshfree methods, col-
location meshfree methods, imposition of boundary con-
ditions, domain integration, stability. Letter grading.

C239. Elementary Structural Dynamics. (4) Le-
cture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 135B. Basic structural dynamics course for civil engineering students. Elastic free and forced vibrations of single degree of freedom systems, introduction to response history and response spectrum analysis approaches for single and multidegree of freedom systems. Axial, bending, and torsional vibration of beams. Concur-
rently scheduled with course C137. Letter grading.


243A. Behavior and Design of Reinforced Concrete Structural Elements. (4) Lecture, four hours; discus-
sion, two hours; outside study, six hours. Requisites: courses 243A, 246. Information on response and be-
behavior of concrete buildings to earth-
quake ground motions. Topics include use of elastic and inelastic response spectra, role of strength, stiff-
ness, and ductility in design, use of prescriptive versus perform-
ance-based methodologies, application of elas-
tic 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. Requi-
ts: courses 243A, 246. Information on response and be-
behavior of concrete buildings to earth-
quake ground motions. Topics include use of elastic and inelastic response spectra, role of strength, stiff-
ness, and ductility in design, use of prescriptive versus perform-
ance-based methodologies, application of elas-
tic and inelastic analysis techniques for new and existing construction. Letter grading.

245. Earthquake Ground Motion Characterization. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Corequisite: course C137 or 246. Earthquake fundamentals, including plate tectonics, fault types, seismic waves, and magnitude scales. Characteristic earthquake source, including magnitude range and rate of future earthquakes. Ground motion prediction equations and site effects on ground motion. Seismic hazard analysis. Ground motion selec-
tion and modification for response history analysis. Letter grading.

246. Structural Response to Ground Motions. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses C137, 141, 142, 235A. Spectral analysis of ground motions; response re-
time, and Fourier spectra. Response of structures to

ground motions due to earthquakes. Computational methods to evaluate structural response. 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 under compression and bending, buckling of bearings, sliding bearings, passive energy dissipation devices, response of structures with isolation and pas-
see energy dissipation devices, static and dynamic analysis of passive and semi-active methods for seismically isolated 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 hydrology, 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 engineer-
ing and management. Letter grading.

250B. Groundwater Hydrology. (4) Lecture, four hours; dis-
cussion, two hours; outside study, six hours. Requisite: course 150. Theory of movement and occu-
rence of water in subterranean aquifers. Steady flow in confined and unconfined aquifers. Mechanics of wells; steady and unsteady flow in confined and un-

250C. Hydrometeorology. (4) Lecture, four hours; outside study, eight hours. Requisite: course 250A. In-
depth study of hydrometeorological processes. Role of hydrology in climate system, precipitation and evap-
oration 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-
te-sensing principles. Letter grade, six hours.

250D. Water Resources Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Requi-
site: course 151. Application of mathematical pro-
gramming techniques to water resources systems. Topics include reservoir management, optimal timing, sequencing and sizing of water re-
sources 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, 251B. Introduction to hydrologic modeling con-
cepts, including rainfall-runoff analysis, input data, un-
certainty analysis, lumped and distributed modeling, parameter estimation and sensitivity analysis, and ap-
plication of models for flood forecasting and predic-
tion of streamflows in water resource applications. Letter grading.

251B. Contaminant Transport in Groundwater. (4) Lecture, four hours; outside study, eight hours. Requi-
ts: courses 250B, 253. Phenomena and mecha-
nisms of hydrodynamic and chemical transport; govern-
ing equations of mass transport in porous media, vari-
analytical and numerical solutions, determination of dispersion parameters by laboratory and field experi-
ments, biological and reactive transport in multiphase flow, remediation design, software packages and ap-
plications. Letter grading.

251C. Remote Sensing with Hydrologic Applica-
tions. (4) Lecture, four hours; discussion, two 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 pro-
cesses. Satellite and airborne sensors, and applications based on retrieval of hydrologically relevant parame-
ters like topography, soil moisture, snow properties, vegetation, and precipitation. Letter grading.

251D. Hydrologic 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 pur-
poses of hydrologic data assimilation. Applications of both forward and assimilation into dynamic models of hydrologic systems. Letter grading.

252. Engineering Economic Analysis of Water and Environmental Planning. (4) Lecture, four hours; dis-
cussion, two hours; outside study, six hours. Enforced re-
quises: Engineering 110, one or more courses from Economics 1, 2, 11, 101. Economic theory and appli-
cations in analysis and management of water and en-
vironmental problems; introduction to methods for water resource management and renewable re-
 sources; benefit-cost analysis with applications to water resources and environmental planning. Letter grading.

253. Mathematical Models for Water Quality Man-
agement. (4) Lecture, four hours; outside study, eight hours. Requisite: course 153. Development of mathe-
matical models for simulating environmental engi-
neering problems. Emphasis on numerical techniques to solve nonlinear partial differential equations and their application to environmental engineering prob-
lems. Letter grading.

254A. Environmental Aquatic Inorganic Chemistry. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Chemistry 20B, Mathe-
matics 31A, 31B, Physics 1A, 1B. Equilibrium and ki-
netics, 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), complex-
ation, precipitation/dissolution, absorption oxidation/ reduction, and photochemistry. Letter grading.

255A. Physical and Chemical Processes for Water and Wastewater Treatment. (4) Lecture, four hours; dis-
cussion, two hours; outside study, six hours. Requi-
tes: courses 150, 153. Overview of fundamental technol-
ogy of water treatment; introduction to water resources systems. Letter grading.

255B. Biological Processes for Water and Waste-
water Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requi-
ts: courses 150, 153. Overview of fundamental technol-
ogy of wastewater treatment; introduction to water resources systems. Letter grading.

C258. Coastal Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requi-
ts: course 151 and Mechanical and Aerospace En-
gineering 105. Overview of fundamental science and en-
gineering microbiology; kinetics of microbial growth and biological oxidation; applications for activated sludge, gas transfer, fixed-film processes, aerobic and an-
aerobic digestion, sedimentation, biological nutrient removal. Letter grading.

C259. Green Infrastructure. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requi-
ts: courses 151 and Mechanical and Aerospace En-
gineering 105. Overview of fundamental science and en-
gineering microbiology; kinetics of microbial growth and biological oxidation; applications for activated sludge, gas transfer, fixed-film processes, aerobic and an-
aerobic digestion, sedimentation, biological nutrient removal. Letter grading.

259A. 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 reverse osmosis, ultrafiltration, electrodialysis, and ion exchange technologies from both practical and theo-
retical standpoints. Letter grading.

C259. Green Infrastructure. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requi-
ts: courses 150, 153. Overview of fundamental science, engineering, and ecological principles to de-
signing green infrastructure for stormwater manage-
ment. Students design and apply green infrastructure based on adverse impact of climate change, but also remain resilient

Civil and Environmental Engineering / 305
260. Advanced Topics in Hydrology and Water Resources. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250B, 250D. Current research questions in inverse solution of parameter estimation, experimental design, conjunctive use of surface and groundwater, multiblock water resources planning, and optimization of water resource 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, photolysis, electrochemical treatment methods, and membrane separations. These advanced processes are increasingly necessary to adequately treat both wastewater and drinking water. Students will study the fundamentals and cutting-edge technologies in detail for thorough understanding of advantages and challenges associated with application of these processes. Letter grading.

261B. 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, pharmaceuticals, emerging pollutants, toxicity, and nutrients. Discussion of the experimental observations, and recent literature. Application to important and emerging environmental problems. Letter grading.

262A. Introduction to Atmospheric Chemistry. (4) (Same as Atmospheric and Oceanic Sciences M223A.) Lecture, three hours; seminar, two hours; outside study, six hours. Correlation, analysis, and metrification of aspects of pollution design, including materials selection and traffic loading and volume. Special attention to aspects of traffic design/serviceability and factoring of these aspects into pavement design. 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 C181. Letter grading.

262C. Rigid and Flexible Pavements: Design, Materials, and Serviceability. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Correlation, analysis, and metrification of aspects of pavement design, including materials selection and traffic loading and volume. Special attention to aspects of traffic design/serviceability and factoring of these aspects into pavement design. 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.

265. Transportation Systems Analysis. (4) Lecture, four hours; outside study, eight 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.

266. Intelligent Transportation Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 180. Introduction to basic elements of intelligent transportation systems (ITS), focusing on technological, logical, 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.

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 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. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research and Preparation of 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 of 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.

CLASSICS

College of Letters and Science
100 Dodd Hall
Box 951417
Los Angeles, CA 90095-1417

Classics
310-825-4171

Alex C. Purves, PhD, Chair

Faculty Roster

Professors
David L. Blank, PhD
Karen A. Marzilli, PhD
Sarah P. Morris, PhD (Steinmetz Professor of Classical Archaeology and Material Culture)
John K. Papadopoulos, PhD
Alex C. Purves, PhD
Amy E. Richlin, PhD
Giulia Sissa, PhD

Adjunct Professors
Brent H. Vine, PhD (A. Richard Diebold, Jr., Endowed Professor)
The civilizations of ancient Greece and Rome are the focus of research and teaching in the Department of Classics. These areas of study are important in their own right and for their contributions to the political, cultural, intellectual, and artistic development of the Western world. To this end, the department offers a wide variety of interdisciplinary courses in classical civilization (multiple-listed in the Art History, Philosophy, and Political Science departments), as well as elementary and advanced courses in ancient Greek and Latin language, literature, and linguistics. Classical civilization courses include such topics as Greek and Latin literature in translation (genres of epic, comedy, tragedy, biography), classical mythology, religion, law, gender and sexuality, politics, philosophy, art and archaeology, and the reception of the ancient world in modern cultures (cinema and classics).

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.

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

Preparation for the Major

Required: Classics 10, 20, Greek 3 or 16 or Latin 3 or 16, and one course from 30, 40W, 41W, 42, 51A, 51B, 60, 88GE.

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.

The Major

Required: (1) Nine upper-division courses in the department (courses in related fields not offered by the department may be substituted by petition and with approval of the undergraduate adviser)—no more than three may be selected from Greek 100 through 133 or Latin 100 through 133, and Classics 198A and 198B may be applied as only one course toward the major and (2) one capstone seminar (Classics 191).

Policies
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
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.

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.

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

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.

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.

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).

Policies

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 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

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.

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 3.25 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.

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

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.

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 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.

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).

Policies

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

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.

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.

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

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.

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.

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).

Policies
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
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.

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 Minor
The Greek minor is designed to recognize a serious commitment to the study of the Greek language. After a year of elementary Greek (Greek 1, 2, 3) or its equivalent, students select departmental upper-division reading courses in ancient Greek prose and poetry that provide close analysis of individual texts, with attention to their historical, literary, and cultural context. Subjects of study include Homer epic, lyric poetry, tragedy and comedy, history, rhetoric, philosophy, and the New Testament.

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, 20, or equivalent. Greek 16 may be substituted for Greek 2 and 3.
Required Upper-Division Courses (20 units):
Five courses selected from Greek 100 through 133.

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.

Latin Minor
The Latin 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. Subjects of study include Roman comedy, epic, lyric, elegy, satire, history, rhetoric, philosophy, epistemology, 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):
Five courses selected from Latin 100 through 133.

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**

**Classics MA, CPhil, PhD**

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Greek MA**

The Master of Arts degree in Greek may only be earned after students have been admitted to the PhD program in Classics.

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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.

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 Greek 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 illustrate with images of art, architecture, and material culture. P/NP or letter grading.

11. **Latin 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 connections between ancient and postclassical eras. Topics include rediscovery of Pompeii and Herculanum; Roman religion and literature; pleasures of Greek or Roman body; and 18th-century British literature and reception of classics. P/NP or letter grading.

12. **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 course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

13. **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.

14. **Modern Receptions of Ancient Political Thought.** (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, Machiavelli, and More and questions such as forms of government, citizenship, justice, happiness, rhetoric, religion, emotion, P/NP or letter grading.

15. **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.

16. **Latin 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 connections between ancient and postclassical eras. Topics include rediscovery of Pompeii and Herculanum; Roman religion and literature; pleasures of Greek or Roman body; and 18th-century British literature and reception of classics. P/NP or letter grading.

17. **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 course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

18. **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, five hours. Intensive on-site study of history and culture of ancient Rome from founding of city to conversion of Christianity. 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 field walks to museums 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 Thought.** (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, 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 M111A) Lecture, three hours. Designed for juniors/seniors. Study of how Western culture has conceived and reinterpreted political thought of ancient Greeks and Romans.

40W. **Reading Greek Literature: Writing-Intensive.** (5) Lecture, two hours; discussion, two hours. Requisite: English Composition 3. Exploration in detail from variety of critical perspectives of carefully selected literary texts characteristic of ancient Greece 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 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, three hours; discussion, one hour. Focus at discretion of instructor. P/NP or letter grading.

47. **Medical Terminology: Origins, Nature, and Uses.** (5) Lecture, two hours; discussion, two hours. Requisite: English Composition 3. Exploration in detail from variety of critical perspectives of carefully selected set of literary texts characteristic of ancient Greece and/or Rome; focus at discretion of instructor. P/NP or letter grading.

48. **Ancient Greek and Roman Medicine.** (4) Lecture, three hours; discussion, one hour. Introduction to specialized vocabulary of health sciences, which is rooted in Greek and Roman 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 new terminology in 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 professionals to humanistic origins. P/NP or letter grading.

49. **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 course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP grading.

50. **Junior Honors Research.** (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.

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, from Homer’s Odyssey to Stanley Kubrick’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, rebulding of home in fantastic territories, methods of travel (both fantastic and mundane), methods of measuring time and distance across space; mourning classifications of fantasy and science fiction, 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 Series.** (5 Seminars, three hours. Topics of current intellectual importance include ancient Greek or 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 Heracleanum; 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 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.
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 that ancient texts and 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 and noble savage) and experiences of members of marginalized groups within dominant cultures (e.g. Egyptian identity in Hellenistic Egypt, Greek, Syrian, and Jewish identity in Roman rule). P/NP or letter grading.

M133. Ancient Historiography: Theory and Practice. (4) (Formerly numbered 133.) (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 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 Greco-Roman Literature. Lecture, three hours. Requisite: course 10 or 20. Study of some major Greek and Roman philosophical, literary, and artistic works. P/NP or letter grading.

141. Topics in History of Latin Literature. Lecture, three hours. Requisite: 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. Requisite: one course from 10, 20, 30, 40, 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. Requisite: course 10 or 40W. Survey of tragedy from 5th-century Athens through late antiquity. P/NP or letter grading.

143B. Ancient Comedy. (4) Lecture, three hours. Requisite: course 10 or 20. 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. Enforced requisite: one course from 10, 20, 30, 40, or 41W. Investigation of one problem in ancient culture, such as the invention 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 contexts of their literary and cultural literatures, and contributions to discussion of basic philosophical issues. P/NP or letter grading.

M145B. Later Ancient Greek Philosophy. (4) (Same as Philosophy M103B) Lecture, three hours. Requisite: one course from M101A, M101A, M101B, or M102. Study of some major texts in Greek philosophy of Hellenistic and Roman periods. Readings vary and include works of Stoics, skeptics, philosophers of science, Neoplatonists, etc. P/NP or letter grading.

M146A. Plato—Earlier Dialogues. (4) (Same as Philosophy M101A) 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.

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 M102) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected works of Aristo.

148. Early Greek Medicine and Thought. (5) Lecture, three hours; discussion, one hour. Versions of medical knowledge and practice in context of Greek intellectual and cultural developments. Readings from medical, philosophical, and historical texts. P/NP or letter grading.

149. 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, noncitizen residents (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. Female in Greco-Roman Literature and Culture. (4) Lecture, three hours. Requisite: course 10. Interdisciplinary study of concept of female in Greek literature and culture. P/NP or letter grading.

150B. Female in Roman Literature and Culture. Lecture, three hours; discussion, one hour. Requisite: course 20. Interdisciplinary study of concept of female in Roman literature and culture. P/NP or letter grading.

C151E. 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 studied with course C251E. P/NP or letter grading.

152A. Ancient City: Greek World. (4) Lecture, three hours. Enforced requisite: course 20 or 51A or Art History 20 or History 1A. Range of interdisciplinary approaches to study of Athens and/or cities of Greek world, including Asia Minor, south Italy, and Sicily. Approaches, themes, and periods (both ancient city and receptions of city from classical antiquity to modern era) vary depending on individual instructor and topic. May be repeated for credit with topic change. P/NP or letter grading.

152B. Ancient City: Roman World. (4) Lecture, three hours. Enforced requisite: course 20 or 51B or Art History 20 or History 1A. Range of interdisciplinary approaches to study of Rome and/or cities of Italy and Roman Empire. Approaches, themes, and periods (both ancient city and receptions of city from classical antiquity to modern era) vary depending on individual instructor and topic. May be repeated for credit with topic change. P/NP or letter grading.

153A. Minoan Art and Archaeology. (4) (Same as History M111) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. Study of development of art and architecture in Minoan Crete from circa 3000 to 1000 BC. P/NP or letter grading.

153B. Mycenaean Art and Archaeology. (4) (Same as History M112) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. Study of development of art and architecture in Mycenaean Greece from circa 2000 to 1000 BC. P/NP or letter grading.

153C. Archaic Greek Art and Archaeology. (4) (Same as Art History M112B) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. Study of development of art and architecture of Greek world from approximately 800 through 490 BC. P/NP or letter grading.

153D. Classical Greek Art and Archaeology. (4) (Same as Art History M112C) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. Study of development of art and architecture of Greek world from approximately 490 through 350 BC. P/NP or letter grading.

153E. Hellenistic Greek Art and Archaeology. (4) (Same as History M112D) Lecture, three hours. Requisite: one course from 10 or 51A or Art History 10. Study of development of art and architecture of Greek world from middle of 4th century BC, including transmittal of Greek art forms to Romans. P/NP or letter grading.

153F. Etruscan Art and Archaeology. (4) (Same as Art History M113A) Lecture, three hours. Requisite: one course from 20 or 51B or Art History 20. Arts of Italic peninsula from circa 1000 BC to end of Roman Republic. P/NP or letter grading.

153G. Roman Art and Archaeology. (4) (Same as Art History M113B) Lecture, three hours. Requisite: course 20 or 51B or Art History 20. Art and architecture of Rome and its Empire from circa 300 BC to AD 300. P/NP or letter grading.

153H. Late Roman Art. (4) (Same as Art History M113C) Lecture, three hours. Requisite: course 20 or 51B or Art History 20. Art of Roman Empire from 2nd through 4th century (AD). P/NP or letter grading.


153L. Late Antique Art and Architecture. (4) (Same as Art History CM115A) Lecture, three hours. Art and architecture of late Roman Empire and early Christian world. P/NP or letter grading.

160. Legal Advocacy in Ancient World. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 10 or 20. Study of theory and practice of legal advocacy in classical Greece and Rome. May be repeated for credit. 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 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 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 poetics and extent of Roman poet's influence on subsequent literature, art, and film. Close analysis of Ovid's seminal text before turning to poem's classical, medieval, Re-
European background, etymology, pronunciation, alliteration, and meter in classical poetry.

185. Origins and Nature of English Vocabulary. (5)
Lecture, three hours. Origins and nature of English vocabulary, including Old English influence on current English.

186. Classical Mythology. (2 or 4)
Seminar, three hours. Study of Greek and Roman mythology, including gods, goddesses, and heroes.

187. Introduction to Classical Linguistics. (4)
Lecture, three hours. Requisite: Greek 3 or Latin 3. Linguistic approach to Greek and Latin, including Indo-European background, etymology, pronunciation, alliteration, and meter in classical poetry.

Graduate Courses

200. History of Classical Scholarship. (4)
Lecture, four hours. S/U 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.

M218. Paleography 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 manuscripts 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 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 presentation of written texts. S/U or letter grading.

202A. 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 Editions of Greek and Latin Texts. (2 or 4)
Seminar, three hours. Different steps required in preparation of critical edition of ancient text: localizing manuscripts, collation, establishing stemma; selecting editorial readings on basis of knowledge of language, of author, and of sources; emendation; formulation of apparatus criticus and apparatus fontium. S/U (2-unit course) or letter (4-unit course) grading.

246. Greek and Latin Meter. (2 or 4)
Seminar, three hours. Study of meter in style and iconography of various periods of Aegean, Greek, and Roman architecture. S/U (2-unit course) or letter (4-unit course) grading.

250. Topos 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.

251A. Seminar: Classical Archaeology—Aegean Bronze Age. (2 or 4) Seminar, three hours. S/U or letter grading.

251B. Seminar: Classical Archaeology—Greco-Roman Architecture. (2 or 4) Seminar, three hours. Study of style and iconography of various periods of Aegean, Greek, and Roman architecture. S/U (2-unit course) or letter (4-unit course) grading.

252. Topography and Monuments of Athens. (2 or 4) Lecture, two or four hours. Detailed studies in topography and monuments of Athens, comprising evidence of literature, inscriptions, and actual remains. 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. Enforced requisite: course 211. P/NP grading.

287. 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 permission of 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 apprenticeship under active guidance and supervision of regular faculty members responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Classics. (2) Seminar, two hours. Normally to be taken by all graduate students in term before or during their first assignments as teaching assistants. Seminar/workshop in various pedagogical issues and strategies in preparation for teaching classics and/or Latin undergraduate courses. Readings and group discussions in topics related to teaching in field of classics. May not be applied toward MA or PhD course requirements. S/U grading.

501. Cooperative Program. (2 to 8) 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.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Study for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 6) 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.

8A-8B-8C. Elementary Modern Greek. (4-4-4) Lecture, three hours. Course 8A is enforced requisite to 8B, which is enforced requisite to 8C. Introductory modern Greek sequence, with emphasis on spoken modern Greek. P/NP or letter grading.

8G. Reading Scholarly Modern Greek. (4) Lecture, two and one half hours. Designed for students who want to develop confidence and 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 organization of texts central to research needs. Students are familiarized with major stylistic features of contemporary academic modern Greek, and consolidate 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. Enforced requisite: course 8C. Course 9A is enforced requisite to 9B, which is enforced requisite to 9C. Intermediate-level program in modern Greek language 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 communicational skills, communicate in everyday real-life situations, comprehend, comprehend and formulate, presentations, 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 interest to current UCLA students. Consists of 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. 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

100. Readings in Greek Prose and Poetry. (4) Lecture, three hours. Requisite: course 90. 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 readings and with consent of instructor. 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.

110. Study of Greek Prose. (4) Lecture, three to four hours. Requisite: course 100. Work in sight reading and grammatical analysis of Attic prose texts; writing Attic prose. 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 Oeconomicus—in Greek. P/NP or letter grading.

121. Plato. (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 from year to year and include Longinus, On Sublime; Marcus Aurelius; Ariian; Second Sophistic; Plutarch; later epic; epigram; epistolographi Graeci. P/NP or letter grading.


133. Readings in Byzantine Literature. (4) Lecture, three hours. Requisite: course 132. Topics vary from year to year and include Apollonius, 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 9C. 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, etc. Credit approved 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 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.

Classics / 313
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. Each course may be taken independently for credit. S/U or letter grading.

201A-201B. Homer. (2 or 4 each) Lecture, three hours. Course 201A is requisite to 201B. S/U (2-unit course) or letter (4-unit course) grading.

202A-202B. Homer. Odyssey and Epic Cycle. (2 or 4 each) Lecture, three hours. Course 202A is requisite to 202B. S/U (2-unit course) or letter (4-unit course) grading.

203. Hesiod. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

204. Hecataeus. (2 or 4 Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

205. Asclepius. (2 or 4 Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

206A-206B. Sophocles. (2 or 4 each) Lecture, three hours. Course 206A is requisite to 206B. S/U (2-unit course) or letter (4-unit course) grading.

207A-207B. Euripides. (2 or 4 each) Lecture, three hours. Course 207A is requisite to 207B. S/U (2-unit course) or letter (4-unit course) grading.

208A-208B. Aristophanes. (2 or 4 each) Lecture, three hours. Course 208A is requisite to 208B. S/U (2-unit course) or letter (4-unit course) grading.

209A-209B. Seminars: Hellenistic Poetry. (2 or 4 each) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.


211A-211B. Herodotus. (2 or 4 each) Lecture, three hours. Course 211A is requisite to 211B. S/U (2-unit course) or letter (4-unit course) grading.

212A-212B. Thucydides. (2 or 4 each) Lecture, three hours. Course 212A is requisite to 212B. S/U (2-unit course) or letter (4-unit course) grading.

213. Greek Historiography. (2 or 4 Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

214. Demosthenes. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

215. 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.

216. Menander. (2 or 4 Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

217A-217B. Greek Lyric Poetry. (2 or 4 each) Seminar, three hours. Each course may be taken independently for credit. S/U (2-unit course) or letter (4-unit course) grading.

218. Greek Novel. (2 or 4 Seminar, three hours. Study of Greek romance and its place in Greek literature. Two texts (Chariton: Chaeas and Calliope and Longus: Daphnis and Chloe) studied in some detail. S/U (2-unit course) or letter (4-unit course) grading.

221. Pre-Socratic Philosophers. (2 or 4 Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

222A-222B. Plato. (2 or 4 each) Lecture, three hours. Course 222A is requisite to 222B. S/U (2-unit course) or letter (4-unit course) grading.

223A-223B. Aristotle. (2 or 4 each) Lecture, three hours. Course 223A is requisite to 223B. S/U (2-unit course) or letter (4-unit course) grading.

224. Post-Aristotelian Philosophy. (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.

231. Latin Epigraphy. (2 Seminar, three hours. Survey of Greek 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, considered both as historical documents and as carriers of literature. S/U (2-unit course) or letter (4-unit course) grading.

245. Greek Paleography. (2 or 4 Seminar, three hours. Studies in development of books hand in Greek manuscripts later than invention of printing. S/U (2-unit course) or letter (4-unit course) grading.

246. Greek Palaeography. (2 or 4 Seminar, three hours. Studies in development of books hand in Greek manuscripts earlier than invention of printing. S/U (2-unit course) or letter (4-unit course) grading.

91. Latin Lower-Division Courses

1. Elementary Latin. (5) Lecture, three hours; discussion, two hours. P/NP or letter grading.

1G. Elementary Latin for Graduate Students. (No credit) Lecture, eight hours. Concurrently scheduled with course 14. No grading.

2. Elementary Latin. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 1. P/NP or letter grading.


19. Latin Freshman Seminars. (1 Seminar, one hour. Discussion of critical and technical topics about 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.

20. Elementary Latin: Comprehensive Review. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3 or 16. Formal review of Latin grammar and syntax. May be repeated for credit twice with change of assigned readings and with consent of instructor. P/NP or letter grading.

89H. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students. Taught 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. 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 lecture course. Individual study course with lecture 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. P/NP or letter grading.

Upper-Division Courses

100. Intermediate Latin: Introduction to Reading Latin (4) Lecture, three hours. Enforced requisite: course 20 (may be taken concurrently). Emphasis on developing skills of reading primary passages of original Latin prose and poetry, with attention to literary and cultural background. Course is requisite for 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. (2 or 4) Lecture, three hours. Requisite: course 105A. Studies in works of Vergil, with emphasis on the second half of Aeneid. 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 of one or more books from first half of Aeneid, designed especially 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.

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 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 tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/N 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/N or letter grading.

**Graduate Courses**


201. Roman Epic Tradition, (2 or 4) Seminar, three hours. Course 205A is not requisite to 205B. Close study of literature of epic, including epics by Virgil, e.g., Ennius, Lucan, Valerius Flaccus, Statius, Silius Italicus, with attention to literary tradition 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 Catullian 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 or 4 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. 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. Close study of one individual satirist, with attention to his position in development of satirical genre in Roman literature. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

210. Advanced Latin Prose Composition, (4) Lecture, three hours. Course 210A is not requisite to 210B. Study of composition, with emphasis on specific features of Latin prose writing. May be repeated for credit with topic change. 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 select 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. Literature survey or focused readings on lives of Cornelius Nepos, Suetonius, Tacitus, or imperial chroniclers of 4th century CE. S/U (2-unit course) or letter (4-unit course) grading.

215. Seminar: Roman Novel, (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 Quaestiones Quaestor��), with attention to its place in its 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.

221. Cicero's Philosophical Works, (2 or 4) Lecture, three hours. 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. Lucretius, (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

224. Seneca, (2 or 4) Seminar, three hours. Detailed study of one work of prose or poetry by younger Seneca. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

229. Sight Translation, (2 or 4) Seminar, three hours. Preparation: graduate-level knowledge of Latin. Practice in translation of previously unseen texts from variety of Latin authors and genres. Topics include peculiarities of style and vocabulary of distinct genres, literary versus scholarly translation, semantic properties of particular words and constructions. May be repeated for credit with topic change. S/U grading.

231A-231B. Seminars: Medieval Latin, (2 or 4 each) Seminar, three hours. Preparation: at least one upper-division Latin course. Course 231A is not requisite to 231B. Studies in various areas of language and literature of medieval Latin. May be repeated for credit with consent of instructor. S/U (2-unit course) or letter (4-unit course) grading.

232. vulgar Latin, (2 or 4) Lecture, three hours. History and characteristics of popular Latin; its development into early forms of Romance languages. S/U or letter grading.

235. Late Latin Poetry, (2 or 4) Seminar, three hours. Close study, with attention to literary and historical background, of work of one or several prose authors who flourished between death of Ovid and fall of Roman Empire. May be repeated for credit with change in author. S/U or letter grading.

236. Late Latin Prose, (2 or 4) Seminar, three hours. Close study, with attention to literary and historical background, of work of one or several prose authors who flourished between death of Ovid and fall of Roman Empire. May be repeated for credit with change in author. S/U or letter grading.


243. Seminar: Latin Palaeography, (2 or 4) Seminar, three hours. Study of inscriptions in book hand in Latin manuscripts earlier than invention of printing. S/U (2-unit course) or letter (4-unit course) grading.
CLUSTER PROGRAM

College of Letters and Science

245. Neo-Latin. (2 or 4) Seminar, three hours. Preparation: course 100. Survey of texts by one or more authors from Renaissance to present, written on related topics. S/U or letter grading.

250. Topic–Studies. Ancient Rome. (2 or 4) Seminar, three hours. Advanced study of some aspect of Latin language or literature or Roman culture. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

495. College Teaching of Latin. (2) Seminar, to be arranged. Preparation: appointment as teaching assistant. Methodology of instruction in conjunction with classroom practice. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Study for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U 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 dynamics. 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 satellite 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. (2 or 4) Course M1A is enforced requisite to M1B, which is enforced requisite to M1CW. Limited to first-year freshmen. Letter grading. M1A-M1B. Lecture, three hours; discussion, two hours. Examination of food production, food security, and access. Focus on human impacts on Earth’s biological 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 included in discussions. M1CW. Special Topics. Seminar, three hours. Enforced requisite: course M1B. 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.

20A-20B-20CW. Intercultural Dynamics in American Culture and Society. (2 or 4) Course 20A is enforced requisite to 20B, which is enforced requisite to 20CW. Limited to first-year freshmen. Letter grading. 20A-20B. 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 construction of race as social and cultural category among two or more groups and ways in which race has shaped understanding of American citizenship. 20CW. Special Topics. Seminar, three hours. Enforced requisite: course 20B. Consideration of how experience, context, and issues of race are represented and understood in historical, legal, cinematic, and literary contexts. Satisfies Writing II requirement.

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. Introduction to key issues in humanities and social sciences through reading of prominent social theories of past four centuries. Consideration of writers from Rousseau and Wollstonecraft to Foucault and Beauvoir in historical context and from perspectives of academic specialties for which their work is fundamental. 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. (5-5-5) 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 causes and mechanisms 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 3. Topics may include global governance, development, and health. Satisfies Writing II requirement.

23A-B-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, theories and practices, and political, social, and cultural contexts within which performance has evolved. 23CW. Special Topics. Seminar, three hours. Enforced requisite: course 23B. Topics include origin and ideas of performance, art and performance, and music as cultural expression. Satisfies Writing II requirement.

M24A-M24B-M24CW. Work, Labor, and Social Justice in U.S. (6-6-6) (Same as Labor Studies M1A-M1B-M1CW) 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 in which ways has been transformed over last century, impact of this transformation on working people, role of labor movement and social justice. M24CW. Special Topics. Seminar, three hours. Enforced requisite: course M24B. Topics include labor law/history, gender, race, and workplace. Satisfies Writing II requirement.

25A-25B-25CW. Politics, Society, and Urban Culture in East Asia. (6-6-6) Course 25A is enforced requisite to 25B, which is enforced requisite to 25CW. Limited to first-year freshmen. Letter grading. 25A-25B. Lecture, three hours; discussion, two hours. Comprehensive exploration of historical evolution of popular Asian urban culture and interrelationship of East Asian politics, social life, and economic and urban cultural expression. 25CW. Special Topics. Seminar, three hours. Enforced requisite: course 25B. In-depth examination of issues in historical and contemporary East Asian popular culture. Satisfies Writing II requirement.

26A-26B-26CW. 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-26B. Lecture, three hours; discussion, two hours. Introduction to social determinants of health, with focus on cultural, historical, socioeconomic, public health, medical, political, and artistic contexts of poverty in Latin America and on different local, national, and regional responses to health inequities. Exploration of major trends and debates that have shaped and continue to define issues related to poverty in the region. 26B. Lecture, three hours; discussion, two hours. Enforced requisite: 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, health sector and public health programs, and global priorities. Introduction to tools to promote health, such as service delivery, health workforce, information systems, access to medicines, health systems financing, 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 summer field study component. Satisfies Writing II requirement.

27A-27B-27CW. Global Islam. (6-6-6) Course 27A is enforced requisite to 27B, which is enforced requisite to 27CW. Introduction to Islam, immensely diverse global tradition which is second largest religion. Study of Islam and Muslims within framework of study of global religious traditions and emphasis on profound
diversity of localized belief and practice found across the world. Examination of Islam’s evolution across 15 centuries, from late antiquity—when it emerged as a localized religion in Central Arabia—to modern times where it is practiced from U.S. to Indonesia. Concentration on broad themes in study of religion: sacred texts, text, history, and prophecy. Students transition to more complex analyses through chronological overview of Islamic history. Study also of case studies of Muslim peoples and societies. Experience with Arabic, music, literature, and political thought. Letter grading.

27A-27B. Lecture, three hours; discussion, one hour. 27CW. Special Topics. Seminar, three hours. Enforced requisite: course 66A-B-66CW. Limited to first-year freshmen. Letter grading. 30A-30B-30CW. Never-Ending Stories: Multidisciplinary Perspectives on Myth and Folklore. (6–6–6) Course 30A is enforced requisite to 30B, which is enforced requisite to 30C, which is enforced requisite to 30W. Limited to first-year freshmen. Letter grading. 30A-30B. Lecture, three hours; discussion, two hours. Exploration in depth of particular mythological traditions, aspects of storytelling, role of myth in culture, society, and/or art, and contributions of various disciplines to study of myth. 30CW. Special Topics. Seminar, three hours. Enforced requisite: course 30B. Topics may include myth and modernity, myth and literature, music, and ritual, and oral tradition and orality, myth and political ideology, myth and science, hero and trickster, and myths of creation. Satisfies Writing II requirement.

40A-40B-40CW. Chinese Classics, Their Legacy in East Asia and the Americas in Modern Times. (6–6–6) Course 40A is enforced requisite to 40B, which is enforced requisite to 40C. Limited to first-year freshmen. Letter grading. 40A-40B-40C. Lecture, three hours; discussion, two hours. Learning in traditional China was defined through mastery of canon of classic texts that students memorized as part of their education. These classics were also taught in Vietnam, Japan, and Korea, and served to create cultural ties across East Asia. Many more texts came to be considered classics—works of enduring value, read by large numbers of people across centuries, including religious, legal codes, novels, paintings, and performances. Exploration of how Chinese classics have been used and reimagined in different places and times to demonstrate enduring importance of these texts and cultural artifacts. Emphasis on how these works were interpreted throughout East Asia, relationship with past, and how shared history is seen as informing present. 40CW. Special Topics. Seminar, three hours; discussion, two hours. Enforced requisite: course 40A-B-C. Special examination of Chinese classic texts and their reimag- ination in modern times. Satisfies Writing II requirement.

48A-48B-48CW. Political Violence in Modern World: Causes, Cases, and Consequences. (6–6–6) Course 48A is requisite to 48B, which is requisite to 48CW. Limited to first-year freshmen. Letter grading. 48A-48B. Lecture, three hours; discussion, two hours. Exploration of causes, dynamics, and consequences of political violence. Political violence can include anything from extra-legal warfare, ethnic cleansing and genocide, civil war, riots and pogroms, and terrorism to fabrication and counter-revolution, and more. Political violence is not modern phenomenon: it has been part of human experience from antiquity to modernity, from interdisciplinary perspective, of political violence, in particular, extreme form of political violence, genocide. Readings of theoretical and empirical works from history, comparative literature, sociology, political science, psychology, and more, employs art, literature, diaries, memoirs, and news media to encourage critical thinking about political violence. 48CW. Special Topics. Seminar, three hours. Enforced requisite: course 48B. In-depth examination of political violence, genocide, anti-Vietnam war movement, political and art- istic countercultures, and changes in technology, law, and media. 60CW. Special Topics. Seminar, three hours. Enforced requisite: course 66B. In-depth examination of political and cultural issues affecting U.S. society from 1954 to 1974. Satisfies Writing II requirement.

66A-66B-66CW. Los Angeles: The Cluster. (6–6–6) Course 66A is enforced requisite to 66B, which is enforced requisite to 66C, which is enforced requisite to 66W. Limited to first-year freshmen. Letter grading. 66A-66B. Lecture, three hours; discussion, two hours. In-depth look at city in which UCLA is located. Drawing on concept of Los Angeles as laboratory, students engage in systematic way with city, its residents, and their homes for over several years. As they do, they come to understand peoples, spaces, politics, and cultures of Los Angeles and its metropolitan region in both present and past. 66C-66W. Special Topics. Seminar, three hours. Enforced requisite: course 66B. Topics may include musical cultures of Los Angeles, Los Angeles as global city, Los Angeles in fiction, Southern California and environment, planning for 21st-century Los Angeles, and housing and homeless in Los Angeles. Satisfies Writing II requirement. 70A-70B-70CW. Evolution of Cosmos and Life. (6 each) Course 70A is enforced requisite to 70B, which is enforced requisite to 70C. Limited to first-year freshmen. Letter grading. 70A-70B-70C. Lecture, three hours; discussion, two hours. Examination in depth of various issues of evolution, as it applies to biological organisms, Earth, solar system, and universe itself, to introduce students to both life and physical sciences. Examination of evolution of life, with emphasis on animals, Earth in course 70A; focus on evolution of life in course 70B. 70CW. Special Topics in Life and Physical Sciences. Seminar, three hours. Enforced requisite: course 70B. Not open for credit to students with credit for course 70D. Examination in depth of various issues of evolution in cosmos from life science perspectives. Satisfies Writing II requirement.

M71A-M71B-M71CW. Biotechnology and Society. (6–6–6) (Same as Society and Genetics M71A-M71B-M71CW) Course M71A is enforced requisite to M71B, which is enforced requisite to M71CW. Limited to first-year freshmen. Letter grading. M71A-M71B. Lecture, three hours; discussion, two hours. Examination of methods, applications, and implications of biotechnol- ogy and of ethical, social, and political implications as well as biological underpinnings. M71CW. Special Topics. Seminar, three hours. Enforced requisite: course M71B. Topics include in-depth examination of ethics and human genetics, bio- weapons and biodefense, sex and biotechnology. Satisfies Writing II requirement.

M72A-M72B-M72CW. Sex from Biology to Gen- dered Society. (6–6–6) (Same as Communication M72A-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. 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 complementary perspectives of anthropology, biol- ogy, medicine, and sociology. Specific topics include biological origins of sex differences, intersex, gender identity, gender inequality, homosexuality, sex differences, sex/gender and law, and politics of sex re-assignment. Satisfies Writing II requirement. M72CW. Seminar, three hours. Enforced requisite: course M72B. Topics may include politics of reproduction, sexuality, sexual identity, so- cial construction of gender, and reproductive technol- ogies. Satisfies Writing II requirement.

S73A-73B-73CW. Mind over Matter: History, Sci- ence, and Philosophy of Brain. (6–6–6) Course 73A is enforced requisite to 73B, which is enforced requisite to 73CW. Limited to first-year freshmen. Letter grading. 73A-73B. Lecture, three hours; discussion, three hours. Examination of phenomena: it has been part of human experience 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 atten- ded to cultural production, generation, 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 and objects. Consult Schedule of Classes for topics and instructors. May be repeated once for credit. P/NP grading.

Upper-Division Courses

160A. Cultural Heritage and Representation of Identity: Debates and Writing. (9) 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 attended to cultural production, generation, 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 and objects. Consult Schedule of Classes for topics and instructors. May be repeated once for credit. P/NP grading.

180B. Cultural Heritage and Representation of Identity: Special Topics. (9) Seminar, three hours. Enforced requisite: 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 attended to cultural production, generation, 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 and objects. Consult Schedule of Classes for topics and instructors. May be repeated once for credit. 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.
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.

Admission

Enrollment in the major is limited. Admission to the major is by application to the committee in charge. Applications are available on the department website to regularly enrolled UCLA students during spring quarter.

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.

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 Core Courses: 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.

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.

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, 151, 154, 155, 156, 158; elective courses: Communication 122, 157, 188C, 191C.
- Political and Legal Communication—Core courses: Communication 101, 160, 162, 170; elective courses: Communication 102, 163, 164, 171, 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 196A, 196B, and 198C, and (4) produce a completed satisfactory honors thesis (as determined by a recommendation of their thesis adviser and final approval by the department chair). Contact the student affairs officer for more information.

Computing Specialization

Majors in Communication 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 and 10B, and (3) completing four courses (at least one of which must be in communication) from Communication 129, 151, 154, 155, 156, 158, Program in Computing 10C, 20A, 40A.

Courses need to be completed with a grade of C– or better 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 Counseling Office). Students graduate with a bachelor’s degree in Communication and a specialization in Computing.

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.

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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. Enforced requisite: 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 communica- tive 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 pronun- ciation of English; analysis of content, design, 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 stu- dents’ fluency in conversational English while increas- ing their awareness of American popular culture. Primer on American-style colloquial English and nu- ances 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 inter- disciplinary approach. Exploration of basic methods and theoretical perspectives that social scientists and others use to study interpersonal and mass communi- cation, and basic concepts used to describe and ex- plain 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 their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M72A-M72B-M72C. Sex from Biology to Gendered Society. (6-6-6) (Same as Clusters M72A-M72B-M72C, Seminars in Communication M72A-M72B-M72C, and Sociology M72A-M72B-M72C). 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 complementary perspectives of anthropology, biol- ogy, medicine, and sociology. Specific topics in- clude biological origins of sex differences, intersex, gender identity, gender inequality, homosexuality, sex differences, sex/gender and law, and politics of sex re- search. M72C. Special Topics. Seminar, three hours. Enforced requisite: course M72B. Topics may include politics of reproduction, sexuality, sexual identity, so- cial construction of gender, and reproductive technol- ogies. Satisfies a graduation requirement.

88. Sophomore Seminars: Communication Studies. (4) Seminar, three hours. Limited to maximum of 20 lower-division students. Readings and discussions designed to enhance students’ current design in discipline. Culminating project may be required. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Lim- ited 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. P/NP or letter grading.

99H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to lower-division lecture course. Individual study with lecture course instructor to expand 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.

99. Student Research Program. (1 to 2) Tutorial (su- pervised research or other scholarly work), three hours per week per unit. Research for and with research for admission 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.

100. Communication Science. (4) Lecture, three hours. Requisite: course 10 or Linguistics 1 or So- ciology 1 or Psychology 10. Examination of funda- mental issues in communication sciences. Exploration of theoretical and methodological approaches that bridge major areas of current interdisciplinary commu- nication research. P/NP or letter grading.

101. Freedom of Communication. (4) Lecture, four hours. Analysis of legal, political, and philosophical is- sues related to freedom of 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 foren- sics activities, including exposure to fundamentals of competitive forensic evidence and public address, interpretation of literature, debate, oratory, and extemporaneous speaking and engage in inde- pendent research and analysis. P/NP or letter grading.

103A. Basic preparation; 103B. Advanced practicum in speech.

104. Analysis and Briefing. (4) Lecture, three hours. Intensive study of selected political or social issues, preparation of bibliography, analysis and evaluation of issues and arguments. P/NP or letter grading.

105. Media Conspiracy Theories in U.S. and Middle East. (4) Lecture, three hours. Through mass and dig- ital media, conspiracy theories are reshaping politics and society around world. Although conspiracy theo- ries are globally widespread, they find particularly fer- tile ground in Middle East and in U.S. Definition, identi- fication, 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 conspir- acies 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. In- troduction to main western European and Middle Eastern news media, with materials in English. Explo- ration of how U.S. is represented in Europe, Middle East, Iran, and Afghanistan, with focus on three compar- ative 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- mist 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, differ- ence, and subjectivity. Focus on function of language, representation and meaning in construction of self, so- cial collectives, and world views. Consideration of how communication is performative endeavor for hu- mans seeking to construct identity. Students are pre- pared to describe and explain theories that detail per- formance as communicative form, analyze ways lan- guage and discourse function as texts that work to produce significant personal and social identities, and develop specific principles of motivation and theoret- ical categories within interdisciplinary study of culture that produce identity. Letter grading.

109. Entrepreneurial Communication. (4) Lecture, four hours. Study of entrepreneurial communication from multiple traditions in interpersonal communica- tion and development of data analysis, interpretation,
and presentational skills utilized in existing, as well as in development of, contemporary innovative busi-
nesses. 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 rela-
tionships. Includes consideration of media influence concep-
tions 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 living (including mass media) and how communication effects reactions to and consequences 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. Exploration of contemporary issues in evolu-
tionary communication research. Topics include design of communication systems, animal signaling, so-
cial communication, and speech production and per-
ception. P/NP or letter grading.

M113. Nonverbal Communication and Body Lan-
guage. (4) (Same as Psychology M137B.) Lecture, three hours. Examination of various forms of non-
verbal communication convey meaningful information to perceivers, with focus on both production and per-
ception. Examples include role of peripheral systems such as bird song, dolphin calls, whale music improvisation, and conversational behavior. With special emphasis on the body language. Readings from the variety of related fields. P/NP or letter grading.

114. Understanding Relationships. (4) Lecture, four hours. Explanation of types of communication that occur in our relationships especially romantic relation-
ships. In-depth coverage of variety of relationship topics, including intimacy, stages of intimate relation-
ships, why we choose to get involved with some people as opposed to others, flirting, and self-disclo-
sure. P/NP or letter grading.

115. Interpersonal Dynamics. (4) Lecture, three hours. Survey of recent scientific approaches to dyadic com-
munication and relationships. Surveys selection of ex-
perimental 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 interpersonal interactions, including use of per-
ipheral devices such as phones or other wearable de-
vices. Consideration of dyadic processes including in-
fluence, mimicry, leadership, active listening, and more. Consideration also of how findings apply be-
yond dyads to teams. 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 psychopathology, marital discord, and 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 negoti-
ation in securing agreements between independent parties. Theory and practice that underlies successful negotiation. Experiential course in which students learn broad array of negotiation skills, including identi-
fying one’s own (and others’) communication style, identifying and incorporating components of suc-
cessful negotiation, and resolving conflict between parties. Letter grading.

118. Language and Music. (4) Lecture, three hours. Cognitive science exploration of structure and evolu-
tion of language and music and their relationships to communication. Explores scientific and cultural aspects of play and entertainment, as well as 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 so-
phisticated, with focus on what people learn from games, how they learn it, and whether learning is po-
tentially useful. Letter grading.

130. Science of Language. (4) Lecture, three hours. Introduction to scientific foundations of psycholinguis-	ics, and connections between language and commu-
ication. Survey of various scientific methods, and how they are applied to key issues in language and commu-
ication. Discussion of how we can measure meanings of words, complexity of sentences, and study of how these are processed (and produced) during communication. Includes some hands-on exer-
cises, including learning some scientific tools that can be used both in future research and in field. Letter grading.


132. Multicultural Telecommunication. (4) Lecture, four hours. Critical evaluation of telecommunication programming and scholarly research of new developments in television. Application of research findings by students to real-world contexts in course discussions, papers, and a final project. Letter grading.

133. Decoding Media Strategies. (4) Lecture, three hours. Today’s mass media are thriving business, cen-
tral part of cultural identity, and vital component of de-
mocracy. How do these different and often conflicting functions determine content of mass media? Exam-
ination of psychological dynamics of advertising, na-
ture of entertainment and mass culture, practice of propaganda, and changing patterns of media owner-
ship. Assessment of impact of mass media on individ-
uals and social institutions. Letter grading.

136. Media Portrayals of Gays and Lesbians. (4) Lecture, three hours. How mass media have portrayed gays and lesbians and why. Media’s depiction, portray-
ral, and handling of homosexuality, with particular focus on how gays and lesbians have been negatively stereotyped, portrayed unrealistically, and often not portrayed at all. Examination of ways in which gays and lesbians have been represented, but also why certain portrayals have tended to dominate. P/NP or letter grading.

140. Theory of Persuasive Communication. (4) Lecture, four hours. Dynamics of communication de-
signed to influence human conduct; analysis of struc-
ture of persuasive discourse; integration of theoretical materials from relevant disciplines of humanities and sciences. Letter grading.

141. Films of Persuasion: Social and Political Advo-
cacy in Mass Society. (4) Lecture, three hours; dis-
cussion, one hour. Films often provide commentary about public issues. Examination of how films commu-
icate to large audiences about history, society, and politics. Critical evaluation of these works to un-
derstand power and limitations of films as social per-
sonalities. Letter grading.

143. Rhetoric of Popular Culture. (4) Lecture, three hours. Rhetorical approach to study of U.S. popular cul-
ture. Examination, both at theoretical level and through specific case studies, of ways in which popular cul-
tural texts perform rhetorically to influence po-
itical and social struggles shaping everyday life. How do particular artifacts or communicative texts consti-
tute source for (re)negotiation of cultural meanings as well as greater understanding of ways language func-
tions 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. P/NP or letter grad-
ing. M144A. Introduction to various structures employed in organization of conversational interac-
tion, such as turn-taking, action sequencing, and re-
pair. M144B. Requisite: course M144A. Consideration of more expanded sequence structures, story-
tropic structures, topical sequences, and overall structural organization of single conversations.

145. Situation Comedy and American Culture. (4) Lecture, three hours. Historical analysis of sitcom genre from its beginning in late 1940s to present. In-
vestigation of how sitcoms have influenced American life and culture and how American life and culture have influenced the form. Focus on the role of family, race and ethnicity, class and economy, gender roles, and political culture. P/NP or letter grading.

146. Evolution of Mass Media Images. (5) Lecture, four hours; discussion/laboratory, one hour. Analysis of evolutionary psychology of images selected by media portraying women and/or minorities in entertainment, advertising, and informational commu-
nication. Letter grading.
148. Integrated Marketing Communications. (4) Lecture, three hours. Exploration of key concepts and methods in marketing communications in both traditional and digital media. Development and execution of marketing strategies, with primary emphasis on 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 the manner in which media culture produces people to perceive various dominant and marginalized and/or colonized groups and identities in which women, lesbian, bisexual, transgendered, racial, and ethnic marginalized peoples, class relations, and other subaltern or subordinated groups are presented and often misrepresented; exploration and application of practical applications of communications and feminist theories for understanding ideological nature of stereotyping and politics of representation through use of media, guest presentations, lectures, class discussions, and readings. Introduction to theory and practice of cultural studies. Letter grading.


153. Introduction to Data Science. (4) Lecture, three hours. Requisite: one course from Computer Science 31, 32, 10A, or 10B with grade of C+ or better, or equivalent. Examination of big data and its impact on 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 research as they relate to data privacy and confidentiality. Investigation 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, four hours. Internet’s digital core was co-opted to perform communicative functions such as gossip, dating, news, entertainment, and trade. Exploration of history, 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 such as business, transportation, 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 breakthroughs through many applications with special emphasis on its uses in media industry, e.g., personalization, recommendation, and targeted advertising. Discussion of role of AI as isinglass for introductions 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 cutting-edge research with 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 other 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 celebrities and fan support have impacted self-image, connectedness, and personal relationships from cultural studies and social sciences perspectives, and how celebrities cultivate celebrity for financial gain. Topics include fan support, image construction, and media sharing, public relations, and impact of social media on fan support, image construction, and damage control. P/NP or letter grading.

158. Communication and Media Law. (4) Lecture, three hours. Examination of how contemporary and historical communications within established political institutions; state papers; deliberative discourses; electoral campaigns. Letter grading.

159. 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 interactions of cognitive factors, social change, and technological innovation. Letter grading.

160. Political Communication. (4) Lecture, four hours; discussion, one hour. Study of nature and function of political communication; analysis of contemporary and historical communications within established political institutions; state papers; deliberative discourses; electoral campaigns. Letter grading.

161. Presidential Communication. (4) Lecture, three hours. Examination of how presidential campaign communication has evolved over time and implications for how presidents seize, shape, and sustain public discourse. Letter grading.


163. Entertainment Law. (4) Lecture, three hours. Various issues in entertainment industry, with primary focus on business, legal, and free speech-related concepts. P/NP or letter grading.

164. Artigilation Communication. (4) Same as Labor Studies M175.) Lecture, four hours; discussion, one hour (when scheduled). Theory of agitation; agitational as a political instrument; discussion of contemporary and historical agitations and policies in democratic society. Intensive study of selected agitational movements and techniques and content of their communications. Letter grading.

165. Agitational Communication. (4) Same as Labor Studies M175.) Lecture, four hours; discussion, one hour (when scheduled). Theory of agitation; agitational as a political instrument; discussion of contemporary and historical agitations and policies in democratic society. Intensive study of selected agitational movements and techniques and content of their communications. Letter grading.


167. Critic and Public 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 have had powerful world impact. Survey of all four genres of visual communications as features of modern mass media. Letter grading.


170. Nonverbal Communication in Architecture. (4) Lecture, four hours. Study of elements of design and style of various buildings in architectural history seen as messages to architects, viewers and users of such buildings. Letter grading.

171. Media and Mind. (4) Lecture, three hours. Investigation of media persuasion and entertainment appeal through three intersecting approaches: study of cognition, reflection 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 assemble media research and create their own short stories. P/NP or letter grading.

172. Field Studies in Communication. (2 to 4) Lecture, two hours. Designed for juniors/seniors. Fieldwork in communication. Students participate in two-hour seminar sessions 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.
Lecture, three hours. To publish or not to publish? Study addresses questions of media ethics—and ethics more broadly—using case-study method to debate pressing issues from actual newsrooms. Students participate in Socratic discussions of fairness, bias, and personal and societal implications of printed, broadcast, and digitized word. Letter grading.

167. Ethical and Policy Issues in Institutions of Mass Communication. (4) Lecture, three hours. Intensive examination of ethical and policy issues arising from interaction of media institutions (print, film, broadcast, and new technologies) and societal institutions (Congresses, federal agencies, courts, Presidencies, schools, churches, political action groups, advertisers, and audiences). P/NP or letter grading.

185. 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 support and skill development that helps students transition to being professional in workplace. Consultation of successful industry professionals from varied fields help students 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: courses for those 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) 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.

190A. Variable Topics Research Seminars: Mass Communication and Media Institutions. (4) Seminar, three hours. Study of how communication theories and research methodologies that bridge major areas of curricular and developmental needs in field or of research of faculty members or students. Assignments and activities may include presentations of original research, critical review of selected articles from current journals, or development of methodologies to explore topics in greater depth through supplemental readings, papers, or other activities. May 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. Variable Topics in Mass Communication and Media Institutions. (4) Lecture, four hours. Variable topics: courses for those to be offered in specific term. May be repeated for credit with topic change. 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 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 prerequisite: course 188SA. Enforced prerequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to participate in weekly facilitated discussions of topics covered in course 188SA. 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 USIE students. Supervised independent study in individually 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 led 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 Topics. (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.

191A. Variable Topics Research Seminars: Mass Communication and Media Institutions. (4) Seminar, three hours. Study of how communication theories and research methodologies that bridge major areas of curricular and developmental needs in field or of research of faculty members or students. Assignments and activities may include presentations of original research, critical review of selected articles from current journals, or development of methodologies to explore topics in greater depth through supplemental readings, papers, or other activities. May 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.

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.

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, one hour. Limited to undergraduates. Limited to students participating in Daily Bruin. Intended to help students get most benefit from their internship experience with UCLA student media. Students meet biweekly with instructor to provide periodic reports on their experiences, and engage with industry mentors. P/NP grading.

195DB. UCLA Daily Bruin and Student Media Internship. (1) Tutorial, one hour. Limited to students participating in Daily Bruin. Intended to help students get most benefit from their internship experience with UCLA student media. Students meet biweekly with instructor to provide periodic reports on their experience, and engage with industry mentors. P/NP grading.

197. Individual Studies in Communication Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual study, with schedule of meetings to be arranged between faculty member and student. 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.

220. Research Methods in Communication Science. (4) Seminar, three hours. Study of how communication science research conducted with focus on qualitative methodology. Students gain understanding of tools used to 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 human 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 quantitative 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 or letter grading.

232. Infant Communication. (4) Seminar, three hours. Covers topics in development of interpersonal communication during infancy including neural and social mechanisms, role of culture, clinical issues, and research methodology. S/U or letter grading.

M234. Social Vision. (4) (Same as Psychology M222G) Seminar, three hours. Exploration of nascent field of social vision, 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.

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 or determined. Specific topics include history of news media, recent media trends, theories of attitude formation and change, media bias, role of sources in construction of news, and economics of news production and consumption. Ways in which media shape public perceptions of political world, campaign communication, and general role of mass media in democratic process. S/U or letter grading.
COMMUNITY ENGAGEMENT AND SOCIAL CHANGE

Interdisciplinary Minor
College of Letters and Science
A265 Murphy Hall
Box 951571
Los Angeles, CA 90095-1571

Community Engagement and Social Change
310-825-7867
E-mail contact
Andrew G. Atkeson, PhD, Chair

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 Community Engagement and Social Change minor integrates community engagement with an academic context that enriches the valuable learning gained through meaningful work.

Admission
To enter the minor, students must have an overall grade-point average of 2.7 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
As they move through the minor, students compile a portfolio. They start the portfolio by articulating a plan for the completion of the minor that reflects the social issues, strategies of engagement, and local communities upon which they will focus their pathway through the minor. This plan is completed as the final reflective writing assignment for Community Engagement and Social Change 50XP or 100XP (for those students declaring an interest in the minor). The portfolio is a repository for the products associated with their academic and experiential work for the minor, including a copy of their capstone research paper, and a critical reflection prior to graduation detailing their pathway through the minor and its implications for their future academic study and/or community engagement.

Required Core Courses (17 to 20 units): Community Engagement and Social Change 50XP or 100XP with a grade of B or better; two additional community-engaged courses (at least one of which must be upper division) from American Indian Studies C122XP, Arts Education M192XP, Asian American Studies M104A, M104B, 140XP, M166A, M166B, M166C, Chicana/o and Central American Studies M100XP, M122, M134XP, M156A, M156B, M156C, Community Engagement and Social Change M105XP, 105XP, M110XP, M133XP, M134XP, M163SL, 165XP, M170XP, M175SL, Education M130AX, Gender Studies M120SL, History M181SL, Honors Collegium 127, Labor Studies M122, M134XP, M166A, M166B, M166C, Lesbian, Gay, Bisexual, Transgender, and Queer Studies 180XP, Science Education 100XP, Spanish M165XP, Statistics 140XP, 141XP, M171, Urban Planning M171, 185XP, World Arts and Cultures 177SL, any 195CE course, or other courses that include a substantive community-engagement experience; and one upper-division elective course from the community-engaged options above or from African American Studies M167, M173, American Indian Studies C121, Anthropology 138P, M138Q, Asian American Studies M108, 141AX, 141BX, M143A, Chicana/o and Central American Studies M122, M123, M127, M128, M129, M144, C179, Community Engagement and Social Change M115, 145, 150, Economics M135, 137, Education 165, Gender Studies M186B, Labor Studies 181, 182A, 182B, Philosophy 150, C156, 157A, 157B, Political Science M105, 112A, Psychology 129C, 175, Public Policy 105, Sociology 113, 143, 158, Urban Planning M122, M171, World Arts and Cultures 100A, 100B, 144, 160 or courses that meet requirements for the UCLA Quarter in Washington program or the UC Center Sacramento program. 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 have a community-engaged course
taken at a prior institution applied toward the minor.


Required Capstone (8 units): Community Engagement and Social Change 191AX, 191BX, with grades of B or better. Students must have completed the core courses requirement, and at least one other community-engaged course prior to enrolling in the Community Engagement and Social Change 191AX. Students may petition to have a capstone sequence completed for their major satisfy the minor’s capstone requirement. Petitions are reviewed on a case-by-case basis, and are assessed by how closely the minor’s capstone requirement aligns with desired learning outcomes associated with the minor’s capstone requirement. 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.

The capstone experience for the minor requires an integrative final paper or project that incorporates the core curriculum and capstone courses. It should address the intersection of a social issue, strategies employed to address that issue, and examination of those methods within specific communities of Los Angeles. The capstone project should be informed by at least one of the student’s community-engaged learning courses (e.g., the community-engaged course and/or the internship).

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 3.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Community Engagement and Social Change

Lower-Division Courses

10. Introduction to Engaged Scholarship. (2) Formerly numbered Civic Engagement 10.) Seminar, two hours. Limited to students participating in pre-approved UCLA civic engagement programs. Introduc- tion to history, research, and philosophy of general University community partnerships, as well as specific opportunities for active engagement by undergrad- uate students at UCLA. Offered in summer only. P/NP grading.

18. Bruin Leaders: Model for Social Change. (1) Formerly numbered Civic Engagement 18.) Lecture; two hours (fieldwork, one hour). Introduction to leaders- ship 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 di- verse issues, organizational skills and team-building development, and personal growth and community service. Policies dedicated to changing status quo with regard to power and opportunity in Los Angeles. Letter grading.

98A. Leadership and Social Change. (2) Seminar, two hours. Exploration of different modes of leader- ship and consideration of how effective leadership can bring about positive social change. We live in period of extraordinary 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 environment, if it is possible to make difference and what role of leadership in face of deep structural inequality, cri- teria that make effective leader, and if each of us bears within ourselves leadership potential. Exploration of past models of successful leadership and different models of present-day leadership, focusing on in- spiration for change from social activism, politics, reli- gion, law, philanthropy, and education. Students are encouraged to formulate their own models of leader- ship. Three to four day experiential learning opportu- nity in leadership development off campus. P/NP grading.

98B. Organizational Analysis and Workforce Readi- ness. (2) Seminar, two hours. Requisite: course 98A. Analytic teaching on how to study institutions and orga- nizations. Students identify, contact, and interview practitioners from work area of interest. Site visits to Los Angeles based nonprofits and community based organizations. Introduc- tion to training on how to study institutions and orga- nizations and prepare research briefs on organiza- tions/institutions to be visited. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (su- bsidiary research or other student work). One to two hours per week period. 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

100XP. Perspectives on Civic Engagement for So- cial Justice. (5) Formerly numbered 100S/L.) Seminar, three hours. Community-based research. Exam- ination of theories and concepts of civic engage- ment as means to achieve social justice. Exploration of what informs and influences student theories of change. Reflection on these concepts through work in collaboration with select community-based organiza- tions dedicated to changing status quo with regard to power and opportunity in Los Angeles. Letter grading.

102. Reflections on Alternative Spring Break. (2) Formerly numbered Civic Engagement 102.) Seminar, two hours. Limited to students who have participated in USAC Civic Service Community Service Alternative Spring Break immediately prior to Spring Quarter. Dis- cussion of role of higher education in civic identity formation, with specific attention to reflection on Alternative Spring Break experiences. P/NP or letter grading.

105XP. Client-Based Program Evaluation and Re- search. (4) Formerly numbered 105S/L.) Seminar, three hours; fieldwork, 10 hours. Limited to juniors/se- niors. Service learning course for undergraduate stu- dents and community partners through which stu- dents learn theory and practice of program evaluation. Evaluation of nonprofit organizations in Los Angeles by research teams. Offered in summer only. Letter grading.

108XP. Introduction to Early Childhood Education: Civic Engagement Perspectives. (4) Formerly num- bered 108S/L.) Lecture, three hours; fieldwork, eight hours. Limited to students who are participating mem- bers of the Los Angeles Early Childhood Collaborative. Offered in fall only. Two quarter-semester units. Service learning course on early childhood development and civic engagement. Overview of child development theory as well as examination of policies and systems that impact practice of preschool education. Discuss- ion about history and future of civic engagement movement designed to engage diverse groups of committed stakeholders in reaching common goal. P/NP or letter grading.

M101XP. Community-Based Studies of Popular Lit- erature. (5) Formerly numbered Community Engagement and Social Change M110S/L.) Seminar, four hours; discussion, one hour
151. Documentary Film Making as Strategy for Social Change. (4) Lecture; two hours; discussion; two hours. Survey of selection of documentary films diverse in genre (advocacy, observational, essayistic, ego document, archival) and subject (war, exploitation, incarceration, ecosystem collapse, respiratory, 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 Community Organizing. (4) Formerly numbered Civic Engagement 152.) Lecture, four hours. Exploration of theories driving social change and how organizing is organized toward common efforts. Analysis of organizing frameworks through specific 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." P/NP or letter grading.

163SL. Civic Engagement and Public Use of Knowledge: Special Topics. (5) Formerly numbered Civic Engagement 163SL.) Seminar, three hours; fieldwork, three hours. Limited to juniors/seniors. Seminar course that examines variable topics related to theory and practice of community-based research. Seminar learning component includes meaningful work with community partners selected in advance by instructor and Center for Community Learning. May be repeated for credit with topic or instructor change. Letter grading.

163XP. Topics in Community-Engaged Research. Theory and Practice. (5) Formerly numbered 133SL.) Seminar, three hours; fieldwork, two hours. Service learning course that examines variable topics related to theory and practice of community-based research. Seminar learning component includes meaningful work with community partners selected in advance by instructor and Center for Community Learning. May be repeated for credit with topic or instructor change. Letter grading.

164SL. Civic Engagement and Social Change 164SL.) 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 communication projects. Focus on how storytelling can empower individuals and communities and advance equity in diverse urban centers like Los Angeles. Letter grading.

165XP. Storytelling for Social Justice: Research and Writing with Nonprofit Organizations. (5) Formerly numbered Civic Engagement 165XP.) 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 communication projects. Focus on how storytelling can empower individuals and communities and advance equity in diverse urban centers like Los Angeles. Letter grading.

166SL. Civic Engagement and Social Change 166SL.) Seminar, three hours; fieldwork, three hours. Limited to juniors/seniors. Seminar course that examines variable topics related to theory and practice of community-based research. Seminar learning component includes meaningful work with community partners selected in advance by instructor and Center for Community Learning. May be repeated for credit with topic or instructor change. Letter grading.

167SL. Civic Engagement and Social Change 167SL.) Seminar, three hours; fieldwork, two hours. Limited to juniors/seniors. Seminar course that examines variable topics related to theory and practice of community-based research. Seminar learning component includes meaningful work with community partners selected in advance by instructor and Center for Community Learning. May be repeated for credit with topic or instructor change. Letter grading.

168SL. Civic Engagement and Social Change 168SL.) Seminar, three hours; fieldwork, two hours. Limited to juniors/seniors. Seminar course that examines variable topics related to theory and practice of community-based research. Seminar learning component includes meaningful work with community partners selected in advance by instructor and Center for Community Learning. May be repeated for credit with topic or instructor change. Letter grading.
plan has already been constructed. Students meet assigned organization, study its business plan, and work with instructors of course and staff of nonprofit organization to develop tailored plan of work for 10-week accelerator program. Students carry out work in conjunction with staff of organization under supervision of instructors and with assistance of experienced entrepreneur volunteer mentors. P/NP or letter grading.

189. Advanced Honors Seminars. (1) (Formerly numbered Civic Engagement 189.) 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 and led by 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) (Formerly numbered Civic Engagement 189HC.) 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.

M190A. Introduction to Community-Engaged Research. (4) Same as Labor Studies M190A.) Seminar, three hours. Enrollment by consent of instructor. Designed for students participating in Astin Community Scholars Program. Introduction of principles of community-engaged research. Exploration of intentions behind 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.

M190B. Community-Engaged Research in Practice: Community Scholars. (4) (Same as Labor Studies M190B.) Seminar, three hours. Requisite: course M190A. Enrollment by consent of instructor. 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 Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and neighboring communities. Key outcomes may include production of policy report, popular education materials, 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 Labor Studies M190C.) Seminar, three hours. Requisites: courses M190A, M190B. Enrollment by consent of instructor. 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 Los Angeles on 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 materials, 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.

191AX. Capstone Research Seminar. (4) (Formerly numbered 191A.) Seminar, three hours. Provides students with analytical and applied framework for process of researching historical and contemporary social issues and efforts to bring about change in local communities. Letter grading.

191BX. Capstone Research Seminar: Projects. (4) (Formerly numbered 191B.) Seminar, three hours. Provides students with analytical and applied framework for process of researching historical and contemporary social issues and efforts to bring about change in local communities. Letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) (Formerly numbered Civic Engagement 375.) Seminar, to be arranged. Preparation: apprentice personnel employed as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of faculty member. Individual contract required. Letter grading.

199. Honors Research in Civic Engagement. (4) (Formerly numbered Civic Engagement 199.) 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) (Formerly numbered Civic Engagement 199.) Tutorial, to be arranged. Supervised Individual research or investigation under guidance of faculty member. Culminating paper or project required. May be repeated once for credit. Individual contract required. Letter grading.

COMMUNITY HEALTH SCIENCES

COMMUNITY HEALTH SCIENCES

Jonathan and Karin Fielding School of Public Health

36-071 Center for Health Sciences

Box 951772

Los Angeles, CA 90095-1772

Community Health Sciences

310-825-5308

Michael L. Prelip, DPA, MPH, CHES, Chair
Dawn M. Upchurch, PhD, LAc, Vice Chair

Faculty Roster

Professors

David P. Eisenman, MD, MSHS, in Residence
Chandra L. Ford, PhD
Gilbert C. Gee, PhD
Deborah M. Gilk, ScD
Kimberly D. Gregory, MD, MPH, in Residence
Robert J. Kim-Farley, MD, MPH, in Residence
James A. Macinko, PhD
Anne R. Pebley, PhD (Fred H. Bixby Professor of Population Policy)

Michael L. Prelip, DPA, MPH, CHES
Michael A. Rodriguez, MD, MPH
Dawn M. Upchurch, PhD, LAc
May C. Wang, DrPH

Professors Emeriti

Michael S. Goldstein, PhD
Isabelle F. Hunt, DrPH, RD
Marjorie Kagawa-Singer, PhD, MA, MN, RN
Sheehed B. Kar, DrPH, MSc
Virginia C. Li, MPH, PhD
Donald E. Morisky, ScD, MSPH, ScM
Alfred K. Neumann, MD, MA, MPH, FABPM
Charlotte G. Neumann, MD, MPH
Kimberley I. Shaof, DrPH
Judith M. Siegel, PhD, MSHyg
Ondine S. von Ehrenstein, MPH, MS, PhD

Associate Professors

Hiram Beltrán-Sánchez, PhD
Jessica D. Gipson, MPH, PhD
Randall S. Kuhn, PhD
May Sudhinaraset, PhD

Assistant Professors

Courtney S. Thomas Tobin, PhD
Jennifer A. Wagman, PhD, MHS

Lecturer

Bonnie Taub, PhD

Adjunct Professors

Diana M. Bontá, DrPH, RN
Elizabeth D’Amico, PhD
Ronald J. Halbert, MD
Ilan H. Meyer, PhD
Wendelin M. Slusser, MD, MS
Samuel J. Stratton, MD, MPH
Paula A. Tavrow, PhD
Deborah R. Young, PhD

Adjunct Associate Professors

Marion T. Baer, PhD, RD
Alina H. Dorian, PhD
Sheba M. George, PhD
Dena R. Herman, MPH, PhD, RD
Cathy M. Lang, MPH, PhD
Shira C. Shafir, PhD, MPH
Valentine M. Villa, PhD

Adjunct Assistant Professors

Matthew R. Beymer, PhD, MPH
Dana E. Hennes, MPH, PhD, RD
Natalie D. Muth, MD, MPH, RDN, FAAP
Elizabeth Yzquierdo, MPH, EdD

Academic Administrator
Sarah R. Blemner Uzan, JD, MPH

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 (MHP) 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

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Matter of Public Health for Health Professionals

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 other's perspectives, read and discuss relevant reading materials, and explore 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 levels. May be repeated for credit. P/NP or letter grading.

80. FITTED: Fitness Improvement Training through Exercise and Diet. (1) Lecture, one hour; activity, two hours. Success in undergraduate experience is very much influenced by attributes beyond intellectual comprehension. Examination of personal, health, and environmental factors that influence college students' eating behaviors, physical activity patterns, and body image. Development of individualized study plans for eating well, being active, and feeling good about their bodies. Learning of practical skills with application to nutrition, physical activity, positive body image, stress management, and other aspects of wellness as students participate in critical evaluation of popular diets, healthy body weights, fitness, supplements, media body ideals, and self-destructive thoughts. 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. Lecture or 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 and departmental honors programs. Designated as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth than 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 work), zero hours. 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 Community Health Sciences. (4) Lecture, four hours. Limited to juniors, seniors, and graduate students, with preference given to under-graduates in Public Health minor. Introductory course to provide students with broad and comprehensive view 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 interventions to protect and improve public 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, advocacy, and public policy. 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 practical application for students in health sciences curricula. P/NP or letter grading.

131. Healthy Food Access in Los Angeles: History and Practice of Urban Agriculture. (4) Lecture, three hours; laboratory. History and current 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 and consumer movements that advocate access to locally grown, in-season, affordable food. Biweekly hands-on gardening 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 sciences, health systems, 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 M129.) Lecture, three hours; fieldwork, one hour. Introductory overview of mental 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.

160. Intergroup Dialogue: Theory and Practice of Peer Facilitation. (4) Seminar, four hours. Recommended requirement: course 60. Discussion on issues of difference, conflict, and community to facilitate understanding between social/cultural groups. Peer facilitated training course to review/contribute to theoretical and research foundations of intergroup dialogue, peer-facilitated dialogues involving relationship building (and coalition building) through thoughtful 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 students from other social identity groups. Letter grading.

161. Intergroup Dialogue: Training Practicum. (4) Seminar, four hours. Enforced prerequisite: course 160. Application and further development of content and skills learned in course 160. Co-facilitation of weekly dialogues with students on specific identity gaps 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.

CM170. Improving Worker Health: Social Movements, Policy Debates, and Public Health. (4) (Same as Labor Studies M170.) Lecture, three hours; fieldwork, two hours. Examination of intersection between work, health, and environment, analysis of social causes of health disparities, investigation of historical and social movements, interpretation of current policy debates, and development of innovative interventions. Concurrently scheduled with course CM470. P/NP or letter grading.


180. Field Studies in Cancer Control. (4) Lecture, two hours; discussion, one hour; fieldwork, four hours. Requisite: Molecular, Cell, and Developmental Biology 50. Designed for juniors/seniors. Opportunity for students to become involved in cancer control through classroom discussion, lectures, service in field, and graduate research. Biology of cancer, its prevention, early detection, treatment, and rehabilitation. Letter grading.

181. Campus/Community Health and Wellness Promotion: From Theory to Practice. (4) Lecture, two hours; discussion, one hour; fieldwork, two hours. Requisite: Molecular, Cell, and Developmental Biology 50. Designed for 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.
219. 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. Further supervision provided by public health organization for which students do internship. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual 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 with an academic advisor or faculty member. 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

200. Global Health Problems. (4) Lecture, two hours; discussion, two hours. Overview of health profile of world in the century. Global health problems and methods by which they have been dealt in context of Alma Ata goal of health for all by year 2000. Letter grading.

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 U.S. preparation. Lectures, readings, and other activities. May be repeated for credit. Individual Honors contract required. Honors content noted on transcript. P/NP or letter grading.


210. 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 behavior, impact of social and community structure on health status, major contemporary approaches to health promotion and health education at community level. Use of comparative international perspective. Letter grading.

211A-211B. Program Planning, Research, and Evaluation in Community Health Sciences. (4) Lecture, three hours; discussion, one hour; outside assignment. (4) Analysis of health research with particular emphasis on evaluation of community-based public health programs. Course organized into three modules. Letter grading. 211A. Requisite: course 211B. 211B. Requisites: Biostatistics 100A and Biostatistics 100B or Epidemiology 100 or Public Health 200A and 200B.

212. Advanced Social Research Methods in Health. (4) Lecture, four hours; laboratory, two hours; outside assignment. Eight assignments on theoretical analysis of social issues. Requisite: course 211B. 211B. Requisites: Biostatistics 100B or Epidemiology 100 or Public Health 200A and 200B. 406. Problems of health survey design and data collection; measurement issues in data analysis and interpretation; use of computer for analysis of large-scale survey data using various statistical techniques. Letter grading.

213. Research in Community and Patient Health Education. (4) Lecture, three hours; discussion, two hours. Requisite: course 210. Application of conceptual, theoretical, and practical approaches to study of race and ethnicity in health care. Includes approaches to study of racial stratification and public health, with focus on (1) conceptualizing race-related factors as social determinants of health, (2) building methodological competence for conducting research on race as a social determinant of health, and (3) developing critical self-consciousness to better understand how persons' racial- or race-related experiences and experiences might inform research. Letter grading.

221. African American Health across Life. (4) Seminar, two hours. Requisite: course 210. Critical examination of social, psychological, and epidemiologic pathways to health and longevity among African Americans through engagement with empirical research from multiple disciplines (public health, sociology, psychology, medicine). Guided by social stress theory and theoretical arguments, students will examine historical and contemporary factors that shape health impact of historical and contemporary racial inequality. Application of this critical lens to examine current events and present health policy solutions and avenues for intervention. Study of African American health is often characterized by deficit approach, which defines well-being of this population in terms of their health disparities. Instead, focus is on discussion of risk factors associated with adverse health outcomes, but also identification of numerous resources used by African Americans to promote resilient and preserve health.

M222. Understanding Fertility: Theories and Methods. (4) (Same as Sociology M206L.) Lecture, three hours. Preparation: one formal or social demography course. Requisite: Biostatistics 100A. Application of demographic theories and techniques to the fertility trends and differentials and social and proximate determinants of fertility, with emphasis on understanding key proximate determinants. For advanced graduate students interested in research on fertility, for those working in demography of health, and social demography. Letter grading.

224. Social Determinants of Nutrition and Health. (4) Lecture, three hours. Preparation: one basic nutrition course. Health promotion strategies aimed at reducing chronic disease risk factors have not been particularly successful in addressing needs of socioeconomically disadvantaged groups. Overview of literature supporting relationship between socioeconomic disadvantage and health conditions such as obesity, diabetes, and osteoporosis. Critical examination of plausible pathways from perspectives of multidisciplines (economics, nutrition, policy, and epidemiology and more), with focus on linkages between social and physical environment (including built environment) and food equity/access; discussion of how food may be catalyst for improving social capital and
health. Discussion of examples of local and international efforts to improve access to healthy foods and/or limit access to unhealthy foods. Exploration of methods for assessing social capital and food-related aspects of neighborhood environments. S/U or letter grading.

225. Writing for Publication in Public Health. (4) Seminar, four hours. Requisites: course 219, two graduate biostatistics courses, one graduate epidemiology course. Development of skills for advanced doctoral students in producing peer-reviewed, high-quality research papers, with focus on theoretically informed empirical research papers. Examination of other types of manuscripts (e.g., reviews) included. Letter grading.


227. Conceptualizing and Measuring Structural Racism. (4) Lecture, three hours. Limited to graduate students. Focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and racism and other forms of systematic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate race and rac...
population, objective writing, program planning, and process, outcome, and impact evaluation. Letter grading.

258. Cooperative Interagency Management in Di-

275. Complementary and Alternative Medicine. (4) (Same as Health Policy and Management M272.) Lecture, three hours. Requisites: course 100 or 210. Health Policy 100. Analysis of use and acceptance of complementary and alternative medicine (CAM) by cli-

276. Social Demography of Los Angeles. (4) (Same as Sociology M263.) Lecture, three hours. Open to graduate students. Examination of the demographic factors that characterize cities in the U.S. Examination of role of these factors in affecting health outcomes. Letter grading.

276. Social Demography of Los Angeles. (4) (Same as Anthropology M233Q and Latin American Studies M260.) Lecture, three hours. Recommended requisites: course 132. Health issues throughout Americas, espe-

276. Social Demography of Los Angeles. (4) (Same as Anthropology M233Q and Latin American Studies M260.) Lecture, three hours. Recommended requisites: course 132. Health issues throughout Americas, espe-

278. Community Health Sciences. (4) (Same as Health Policy and Management M259.) Lecture, two hours; discussion, two hours. Recommended requisites: Community Health Sciences 286. Overview of essential theories regarding development, implement-

278. Community Health Sciences. (4) (Same as Health Policy and Management M259.) Lecture, two hours; discussion, two hours. Recommended requisites: Community Health Sciences 286. Overview of essential theories regarding development, implement-

279. Smoking, Drinking, Shooting, and Driving: Understanding Public Health Policy in U.S. (4) (Same as Health Policy and Management M259.) Lecture, four hours. Recommended requisites: course 285. Designated for graduate students. Broad overview of how agencies involved in disaster responses work together to handle impact of mass population emergencies. Identification of role of local, state, and federal governments, nonprofit and private sectors, media, and healthcare fa-


281A. Capstone Seminar: Health Promotion and Edu-

281A. Capstone Seminar: Health Promotion and Edu-

282. Social Marketing for Health Promotion and Edu-

282. Social Marketing for Health Promotion and Edu-

283. Evidence-Based Health Promotion Programs for Older Adults. (4) Seminar, three hours. Requisite: course 210. Graduate seminar intended to explore so-

284. Sociocultural Aspects of Mental Health. (4) Lecture, three hours. Designed for graduate stu-

285. Basic and Clinical Research Methods. (4) (Same as Biology M314.) Lecture, three hours. Recommended requisites: courses 100 and 101. Selected methods for conducting research, including laboratory techniques and the use of statistical methods to analyze data. Movement from proof by experiment to scientific method.

286. Doctoral Roundtable in Community Health Scien-

286. Doctoral Roundtable in Community Health Scien-

287. Political Science of Public Health. (4) Lecture, three hours. Requisites: courses 100 and 101. The political science of public health in the U.S., focusing on issues such as environ-

288. Health Communication in Popular Media. (4) Lecture, three hours; discussion, one hour. Requisites: course 120 or prior social sciences courses. Media literacy, digital expression, audience analysis, and health communication campaigns, including use of new media information technology applied to website, social media, print media, video, and audio platforms. Letter grading.

289. Social and Behavioral Research in AIDS: Dif-

289. Social and Behavioral Research in AIDS: Dif-

290. Race, Class, Culture, and Aging. (4) Lecture, three hours; discussion, one hour. Requisites: courses 132, 210, 270A, and 270B. 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 in how it is socially constructed. Letter grading.

291. Health Policy and Age. (4) Lecture, three hours; discussion, one hour. Requisites: course 132, 210, 270A, and 270B. 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 in how it is socially constructed. Letter grading.

292. Information Technology for Health Promotion 

292. Information Technology for Health Promotion 

293. Race, Class, Culture, and Aging. (4) Lecture, three hours; discussion, one hour. Requisites: courses 132, 210, 270A, and 270B. 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 in how it is socially constructed. Letter grading.

294. Social and Behavioral Factors of HIV/AIDS: 

294. Social and Behavioral Factors of HIV/AIDS: 

295. Health Communication in Popular Media. (4) Lecture, three hours; discussion, one hour. Requisites: course 120 or prior social sciences courses. Media literacy, digital expression, audience analysis, and health communication campaigns, including use of new media information technology applied to website, social media, print media, video, and audio platforms. Letter grading.

296. Field Studies in Public Health. (4) Fieldwork, to broaden knowledge of selected community organizations for health promotion or medical care. Students must file placement and program training documentation on form available through Student Affairs Office. Field placements toward MS minimum course requirement; 4 units may be applied toward 60-unit minimum total required for MPH degree. Letter grading.

297. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice person- 

298. Health Communication in Popular Media. (4) Lecture, three hours; discussion, one hour. Requisites: course 120 or prior social sciences courses. Media literacy, digital expression, audience analysis, and health communication campaigns, including use of new media information technology applied to website, social media, print media, video, and audio platforms. Letter grading.

298. Health Communication in Popular Media. (4) Lecture, three hours; discussion, one hour. Requisites: course 120 or prior social sciences courses. Media literacy, digital expression, audience analysis, and health communication campaigns, including use of new media information technology applied to website, social media, print media, video, and audio platforms. Letter grading.

299. Race, Class, Culture, and Aging. (4) Lecture, three hours; discussion, one hour. Requisites: courses 132, 210, 270A, and 270B. 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 in how it is socially constructed. Letter grading.

300. Field Studies in Public Health. (4) Fieldwork, to broaden knowledge of selected community organizations for health promotion or medical care. Students must file placement and program training documentation on form available through Student Affairs Office. Field placements toward MS minimum course requirement; 4 units may be applied toward 60-unit minimum total required for MPH degree. Letter grading.

301. Health Policy and Age. (4) Lecture, three hours; discussion, one hour. Requisites: course 132, 210, 270A, and 270B. 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 in how it is socially constructed. Letter grading.

302. Health Communication in Popular Media. (4) Lecture, three hours; discussion, one hour. Requisites: course 120 or prior social sciences courses. Media literacy, digital expression, audience analysis, and health communication campaigns, including use of new media information technology applied to website, social media, print media, video, and audio platforms. Letter grading.

303. Social and Behavioral Research in AIDS: Dif-

303. Social and Behavioral Research in AIDS: Dif-

304. Advanced Social and Behavioral Research in AIDS: Dif-

304. Advanced Social and Behavioral Research in AIDS: Dif-

305. Health Communication in Popular Media. (4) Lecture, three hours; discussion, one hour. Requisites: course 120 or prior social sciences courses. Media literacy, digital expression, audience analysis, and health communication campaigns, including use of new media information technology applied to website, social media, print media, video, and audio platforms. Letter grading.

306. Health Communication in Popular Media. (4) Lecture, three hours; discussion, one hour. Requisites: course 120 or prior social sciences courses. Media literacy, digital expression, audience analysis, and health communication campaigns, including use of new media information technology applied to website, social media, print media, video, and audio platforms. Letter grading.

307. Teaching Apprentice Practicum. (1 to 4) Sem-

308. Health Communication in Popular Media. (4) Lecture, three hours; discussion, one hour. Requisites: course 120 or prior social sciences courses. Media literacy, digital expression, audience analysis, and health communication campaigns, including use of new media information technology applied to website, social media, print media, video, and audio platforms. Letter grading.

309. Race, Class, Culture, and Aging. (4) Lecture, three hours; discussion, one hour. Requisites: courses 132, 210, 270A, and 270B. 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 in how it is socially constructed. Letter grading.

310. Field Studies in Public Health. (4) Fieldwork, to broaden knowledge of selected community organizations for health promotion or medical care. Students must file placement and program training documentation on form available through Student Affairs Office. Field placements 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 Control. (4) (Same as Health Policy M411.) Lecture, four hours. Designed for juniors/seniors and graduate students. Introduction to causes and characteristics of cancer, 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.) 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. Recommended requisite: course 247. In-depth understanding of reproductive health challenges facing sub-Saharan Africa and major programs designed to address them. Topics include family planning, STIs, abortion, adolescents, HIV/AIDS, and 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 characteristics of 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). Letter grading.

M430. Building Advocacy Skills: Reproductive Health Focus. (4) (Same as Health Policy M430.) Seminar, three hours. Recommended requisite: one prior health policy course such as Community Health Sciences M420. Focus on development of advocacy skills. Letter grading.

431. Foundations of Reproductive Health. (4) Lecture, three hours. Limited to graduate students. Understanding reproductive technologies and 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 policies. Includes anatomy and physiology of male and female reproductive health tracts, methods of birth control, medical and surgical abortion, infertility, maternal care, and sexual violence and trauma. 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, controversies surrounding new technology, regionalization, organization of services at federal, state, and county levels, and medical/legal issues. S/U or letter grading.

434A. Mental and Child Health in Developing Areas. (4) Lecture, four hours. Requisite: course 231. 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. S/U 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 to two epidemiology courses. 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.

M436A-M436B. Child, Health Programs, and Policies. (4–4) (Same as Health Policy M436A-M436B.) Lecture, four hours; fieldwork, one hour. Course M436A is requisite to M436B. Examination of history of child health policy trends and determinants of health, structure, and function of health service systems; programs, policies, and practices affecting especially at-risk populations. 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 system to assess mitigation of national security and disaster/terrorist risks and hazards. Letter grading.

441. Planning and Evaluation of Global Health Programs. (4) Lecture, four hours; research, guidelines, and team exercise for planning community health/family planning projects in U.S. and in developing countries. Phases include community needs identification; goal setting; budget and work plan 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. Clinical, community, and population-based approaches 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 Considerations. (4) Lecture, two hours; discussion, one hour; student participation, one hour. Requisite: course 434A. Problems and priorities in nutrition education and training for health workers in developing countries of Third World countries, including new concepts in primary healthcare services, mass media, communications, and governmental and international interventions. S/U 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 231 or 434A. Current health issues of countries in Middle East 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 of population in area. Letter grading.

448. Nutrition Policies and Programs: Domestic and International Perspectives. (4) Lecture, two hours; discussion, two hours. Requisite: 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 nongovernmental 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 course. Advanced-level seminar on nutritional needs of healthy individuals, current knowledge of role of nutrition in disease prevention, nutritional and metabolic responses to disease, and role of nutritional therapies in management of disease. Letter grading.

451. Post-Disaster Community Health. (4) Lecture, four hours. Examination of how public health research and practice can be combined to address post-disaster community health needs. Identification of disaster-related health 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 masters 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 and Public Policy M472.) Lecture, two 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. S/U or 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 diseases, 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. Designed for graduate students. Overview course 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 and graduate dean. Lecture, one hour. 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 minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.
COMPARATIVE LITERATURE

College of Letters and Science
350 Kaplan Hall
Box 951536
Los Angeles, CA 90095-1536

Comparative Literature
310-825-7650
Department e-mail
Michael Rothberg, PhD, Chair

Faculty Roster

Professors
Ali Behdad, PhD (John Charles Hillis Professor of Literature)
Massimo Ciavolella, PhD (Franklin D. Murphy Professor of Italian Renaissance Studies)
Eleanor K. Kaufman, PhD
Kathleen L. Komar, PhD
Efraim Kristal, PhD
Tamara J. M. Levitz, PhD
David W. MacFadyen, PhD
Saree Makdisi, PhD
Kirstie M. McClure, PhD
Aamir R. Mufti, PhD
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 (Edward W. Said Professor of Comparative Literature)
Zrinka Stahuljak, PhD

Professors Emeriti
Katherine C. King, PhD
Françoise Lionnet, PhD
Kenneth Reinhard, PhD
Ross P. Shideler, PhD
Samuel Weber, PhD

Associate Professors
Nouri Gana, PhD
Elizabeth A. Marchant, PhD
Yasemin Yildiz, PhD

Assistant Professor
Stephanie B. Santana, PhD

Adjunct Professors
Whitney L. Arnold, PhD
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 discipline it requires exceptional linguistic ability, theoretical knowledge, and high intellectual caliber. The UCLA program offers students the opportunity to work with faculty members in any of the language and literature departments as well as with the Department of Comparative Literature faculty.

The department, which is interdisciplinary and multilingual in scope, is committed to continuing its pioneering work in defining new literary paradigms and fostering new directions for exploration in literary studies, including such areas as 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 and global censorship, postcolonial and diaspora studies, and experimental approaches to literature and culture.

Focusing on elements that preoccupy literary studies in general, such as genre, 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 and cultural forms, themes, and movements. Given its focus on interdisciplinary research and pedagogy, comparative literature is a natural site around which to explore the boundaries of modern language 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

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) literary proficiency in at least one language other than English, to be demonstrated by admission into one upper-division literature course in the original language.

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 language, 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.

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 affairs officer to take two upper-division literature courses in translation if their primary literature area is in a language other than English).

Honors Program

The 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 affairs officer to enter the program.

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 a senior honors 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 compara-
tive literature and to apply that knowledge in lit-
erature and comparative literature courses.

Admission
To enter the minor students must have fulfilled
the College Writing requirement, have com-
pleted 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 En-
lish, and file a petition with the student affairs
officer, 350B 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 4DW 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 mi-
or 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 mi-
or. Successful completion of the minor is indi-
cated on the transcript and diploma.

Graduate Major

Comparative Literature

MA, CPhil, PhD

Program Requirements
Official, specific degree requirements are de-
tailed in program requirements for UCLA grad-
uate degrees, available at the Graduate Divi-
sion 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. En-
froced: 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 Od-
yssey, Greek tragedies, portions of Bible, Virgil, Petri-
nonius, St. Augustine, and others such as Gilgamesh or
Tirant el Bese".

1B. World Literature: Middle Ages to 17th Century. (5)
Lecture, three hours; discussion, one hour. En-
froced: 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, four hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2CW or 4CW. Study of major literary texts usually overlooked in courses that focus only on canon of Western litera-
ture, with emphasis on literary analysis and expository
writing. Texts from at least three of following areas
read in any given term: African, Caribbean, East Asian,
Latin American, and Middle Eastern literature. Analysis
of texts includes focus on structures, processes, and
practices that generate inter-group inequities or con-
flicts as well as those that support fairness and inclu-
siveness. Satisfies Writing II requirement. Letter grading.

1D. Great Books from World at Large. (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 2BW. Study and discus-
sion of selected texts from antiquity to Middle Ages, with
emphasis on literary analysis and expository writing.
Texts include works and authors such as Iliad, Ody-
ssey, Gilgamesh, Sapppo, Greek tragedies, Aeneid,
Petronius, Beowulf, or Marie de France. Satisfies Writing II requirement. Letter grading.

1E. Social Media and Storytelling: Comparing Cul-
tures. (5)
Lecture, two hours; discussion, two hours.
Enforced requisite: satisfaction of Entry-Level Writing
requirement. Study of social media as platform for stor-
ytelling, with core focus on three distinct cultures: U.S.,
China, and Russia. History, form, and various functions of social media. Examination of how we tell stories about ourselves and how we interpret digital
daratives we see, hear, or read from organizations
near and far. Analysis of networked narratives encoun-
tered online. P/NP or letter grading.

1F. World Literature: Age of Enlightenment to 17th Century. (5)
Lecture, four 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 2BW. Study and discus-
sion of selected texts from Middle Ages to 17th cen-
tury, with emphasis on literary analysis and expository
writing. Texts may include works and authors such as
Chaucer, Dante’s Divine Comedy, Cervantes’ Don Quixote, Shakespeare, One Thousand and One
Nights, Christine de Pizan, Popul Vuh, Molière, and Racine. Satisfies Writing II requirement. Letter grading.

2A. World 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 1B or 4BW.
Study of selected texts from Middle Ages to 17th cen-
tury, with emphasis on literary analysis and expository
writing. Texts include works and authors such as
Chaucer, Dante, Cervantes, Marguerite de Navarre,
Shakespeare, Cervantes, Don Quixote, and Racine. Satisfies Writing II requirement. Letter grading.

2B. World Survey of Literature: Middle Ages to 17th Century. (5)
Lecture, two hours; discussion, two hours. En-
froced 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 cen-
tury, with emphasis on literary analysis and expository
writing. Texts include works by authors such as
Chaucer, Dante, Cervantes, Marguerite de Navarre, Shakespeare, Cervantes, Don Quixote, and Racine. Satisfies Writing II requirement. Letter grading.

2C. World Survey of Literature: Age of Enlightenment to 20th Century. (5)
Lecture, two hours; discussion, two hours. En-
froced requisite: English Composition 3 or
4CW. Study of selected texts from Age of Enlighten-
ment to 20th century, with emphasis on literary anal-
ysis and expository writing. Texts include works such as
The Federalist, Petronius, Flaubert, Goethe, Ibsen, and Dostoevsky. Satisfies Writing II requirement. Letter grading.

2D. Survey of Literature: Great Books from World at Large. (5)
Lecture, two hours; discussion, two hours. En-
froced requisite: English Composition 3. Not open for credit to students with credit for course 1C or
4CW. Study of major literary texts usually overlooked in courses that focus only on canon of Western litera-
ture, with emphasis on literary analysis and expository
writing. Texts from at least three of following areas
read in any given term: African, Caribbean, East Asian,
Latin American, and Middle Eastern literature. Analysis
of texts includes focus on structures, processes, and
practices that generate inter-group inequities or con-
flicts as well as those that support fairness and inclu-
siveness. Satisfies Writing II requirement. Letter grading.

4A. World Literature and Writing: Antiquity to Middle Ages. (5)
Discussion, four 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 2BW. Study and discus-
sion of selected texts from antiquity to Middle Ages, with
emphasis on literary analysis and expository writing.
Texts include works and authors such as
Chaucer, Dante’s Divine Comedy, Cervantes’ Don Quixote, Shakespeare, One Thousand and One
Nights, Christine de Pizan, Popul Vuh, Molière, and Racine. Satisfies Writing II requirement. Letter grading.

4B. World Literature and Writing: Middle Ages to 17th Century. (5)
Discussion, four hours. Enforced requi-
reserve: English Composition 3 or 3H or English as a Second
Language 36. Not open for credit to students
with credit for course 1B or 2BW. Study and discus-
sion of selected texts from Middle Ages to 17th cen-
tury, with emphasis on literary analysis and expository
writing. Texts may include works by authors such as
Shakespeare, Goethe, Ibsen, and Racine. Satisfies Writing II requirement. Letter grading.

4C. World Literature and Writing: Age of Enlightenment to 20th Century. (5)
Discussion, four 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 1C or 2CW. Study and discus-
sion of selected texts from Age of Enlightenment to
20th century, with emphasis on literary analysis and expository
writing. Texts may include works by au-
thors such as Swift, Voltaire, Diderot, Rousseau,
Goethe, M. Shelley, Flaubert, Ibsen, Strindberg,
Dostoevsky, Gogol, Kafka, Joyce, Beckett, L. Hughes,
and Garcia Marquez. Satisfies Writing II requirement. Letter grading.

4D. World Literature and Writing: Great Books from World at Large. (5)
Seminar, four 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 over-
looked in courses that focus only on canon of Western
literature, with emphasis on literary analysis and ex-
pository writing. Texts from at least three of following
areas read in any given term: African, Caribbean, East
Asian, Latin American, and Middle Eastern literature. Texts may include works by authors such as
Achebe, Can Xue, Desai, Emecheta, Kincard, Neruda, Ngugi,
Pak, Rushdie, and El Saadawi. Analysis of texts in-
cludes 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 Humainties. (5)
Lecture, two hours; discussion, two hours. What ex-
actly are humanities? Position of humanities as not
science is becoming unclear as human communica-
tion, thought, and culture are increasingly tied to tech-
nology. Examination of various disciplines within hu-
mainties at UCLA to define their place in today’s so-
ciety, 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
in current intellectual importance, taught by faculty
members in their area of expertise and illuminating
many paths of discovery at UCLA. P/NP grading.

Comparative Literature / 333

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 seminars and 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 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 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 1 or 2 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. Lecture grading.

M101. Hebrew Literature in English—Literary Traditions of Ancient Israel: Bible and Apocrypha. (4) (Same as Jewish Studies M150A) Lecture, three hours. Study of literary culture of ancient Israel through examination of principal compositional strategies of Hebrew Bible and Apocrypha (read in translation). P/NP or letter grading.

102. Classical Tradition: Epic. (4) Seminar, three hours. Designed for upper-division literature majors. Analysis of major works of Greek and Roman literature, including Paradise Lost and Paradise Regained as well as significant works in the Arabic tradition. Letter grading.

103. People on Run: Migrants, Minorities, and Multiculturalism in Europe. (4) Seminar, three hours. Problem of migrants and refugees in ongoing crisis of European Union and of European multiculturalism in particular. 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 the future of what has primarily been conceived of as one economic union. Offered in summer only. P/NP or letter grading.

104. Art of Film Adaptation. (4) Seminar, three hours. Engagement with current debates and key theoretical texts about film adaptation. Exploration of art of film adaptation in broad sense, including transformation of short stories, plays, novels, historical accounts, biographies, political and social documents, or philosophical concepts into multilayered medium of cinema. Adaptations addressed include selection of films from range of cultural and linguistic traditions by directors such as Truffaut, Welles, Varda, Kurosawa, Babenco, Rossellini, Hitchcock, Antonioni, Kieslowski, and Taymör. Specific directors, films, and cinematic traditions vary to year. P/NP or letter grading.

C105. Comic Vision. (4) Lecture, three hours. Designed for upper-division literature majors. Literary masterpieces, both dramatic and non-dramatic, selected to demonstrate varieties of comic expression. May be concurrently scheduled with course C205. Undergraduate students read all works in translation. P/NP or letter grading.

106. Archetypal Heroes in Literature. (4) Seminar, three hours. Designed for juniors/seniors. Survey and analysis of function of such archetypal heroes as Achilles, Ulysses, Prometheus, Oedipus, and Orpheus in literature from antiquity to modern period. All works read in translation. P/NP or letter grading.

108. Autobiography in Francophone and Anglophone Worlds. (5) Seminar, three hours. Designed for juniors/seniors. Focus on number of narratives that use autobiography of tales to elucidate self in relation to history of nations and biography of family members. Introduction to theories of subjectivity and to genre of self-writing in France, Africa, and Caribbean. Comparison of serial autobiographies of Assia Djebar, Anni Emaux, and Jamaica Kincaid to better understand limits of genre. Texts represent different limit cases of autobiography and can be read as biography, autobiography, and auto/historiography. Examination of differences that emerge between autobiographical pact (Lejune) that some authors create with their readers and liberties that others take with history. Attention to ways visual culture, photography, film, helps authors make their point, access memory, or create metaphors of self. P/NP or letter grading.

M110. One Thousand and One Nights/Al Layla Wa-Layla. (4) (Same as Arabic 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 story of how the original translation, contemporary oral performances of tales in Arabic-speaking world, literary emergence of vernacular language in relation to classical Arabic, and Western approaches to Arabic. (Same as Arabic 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 story of how the original translation, contemporary oral performances of tales in Arabic-speaking world, literary emergence of vernacular language in relation to classical Arabic, and Western approaches to Arabic.

111. Histories and Methodologies of Comparative Literature. (4) Seminar, three hours. Preparation: pass/fail satisfaction of Entry-Level Writing and College writing requirements. Requisites: two courses from Comparative Literature 1 or 2 series or English 10 or 20 series or Spanish 60 series. Recommended: course M101 recommended. Exploration of history of comparative literature discipline and variety of central methodological past and present debates concerning nature of discipline. Introduction to several key theoretical approaches early 20th century to present, addressing these and other related questions: what does it mean to read comparatively? What is significance of reading literature across existing national and linguistic borders? What are criteria for conducting such comparative readings? is comparative reading more concerned with finding similarities or differences? P/NP or letter grading.


113. Opera in LA Live. (4) Seminar, three hours; field trips. Interpretation of operas currently being performed in Los Angeles from critical perspective of comparative literature studies. Content varies to match changing repertoire. Critical exploration and re- lation of every aspect of opera as literary and musical form. Analysis and interpretation of original literal source and libretto, music, singing, staging, dramatics, reception, and live performance. Two or more field trips to LA Opera, UCLA Opera, and/or Long Beach Opera to experience opera. P/NP or letter grading.

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 Euro- pean life and letters. P/NP or letter grading.

M120. Women and Literature in Southeastern Europe. (4) (Same as Central and East European Studies M210.) Seminar, three hours. Examination of changing roles of women in Balkan countries (Albania, Bosnia-Herzegovina, Bulgaria, Czechoslovakia, Croatia, Montenegro, Romania, Serbia, Slovenia, Turkey) in last forty years. Emphasis on cultural, social, political, and economic factors affecting women’s roles during transition from Ottoman to modern nation-states. 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 authors. Discussion and debating of topics covered in articles, different positions taken by authors, and way in which aspects of these realities are rendered in fictional form by women writers from region. P/NP or letter grading.

C122. Renaissance Drama. (4) Lecture, three hours. Designed for upper-division literature majors. Broad introduction to subject matter and types of plays in Renaissance, with consideration of historical and lit- erary influences on plays, as well as works of such dramatists as Tasso, Machiavelli, Lope de Vega, Racine, Jonson, Shakespeare. May be concurrently scheduled with course C222. Undergraduate students may not take course as English Departmental Honors students. Letter grading.


M132. Comparative Media 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 Slavic phenomena. Letter grading.

M148. Contemporary Arab Film and Song. (4) (Same as Arabic M148) Seminar, three hours. Exploration of film and song and between popular cultures and cul- tures of commitment (iltizam), with possible focus on specific genres such as realist/neorealist Arab film; feminist Arab film or popular Arab film and song; 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 musical genres such as Rai, Mizoued, and Hip-hop also exam- ined in relation to emergence not only of national cin- emas, national music industries, and Arab stars but also of video clip, satellite TV, star academy, and reality shows—al products of transnational and pan- Arab mass media. P/NP or letter grading.

C152. Symbolism and Decadence. (5) Seminar, four hours. Designed for upper-division literature majors. Study of symbolist and decadent movements in 19th- and 20th-century English and French poetry and prose, including authors such as Baudelaire, Rim- baud, Verlaine, Mallarmé, Maeterlinck, and Turgenev. May be concurrently scheduled with course C252. Undergraduate students may read all required French texts in translation. P/NP or letter grading.

C155. Theory and Poetics. (5) Seminar, four hours. Designed for upper-division literature majors. Study of specific poets and poetics related to them during first half of 20th century. Texts may in- clude poets such as W.B. Yeats, Ezra Pound, T.S. Eliot, Paul Valéry, P.M. Wodehouse, Gunnar Ekelöf, and Wal-
154. Adventures of Avant-Garde. (5) Seminar. four hours. Designed for upper-division literature majors. Interdisciplinary study of avant-garde literature and art, including Futurism, Dadaism, surrealism, existentialism, and various theories of modernism, postmodernism, and other avant-garde movements. May be concurrently scheduled with course C253. Undergraduate students may read all works in translation. P/NP or letter grading.

156. Holocaust in Literature. (4) Same as Jewish Studies M187.) Lecture, three hours. Investigation of how Holocaust informs various film and literary works and raises wide range of aesthetic and moral questions. P/NP or letter grading.

160. Modern Jewish Literature in English: Diaspora Literatures. (5) (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 other languages. Written by German, Russian, French, and Italian. Analysis of formal aspects of each work. P/NP or letter grading.

167. Modern Arabic Literature in English. (4) Seminar, three hours. Designed for upper-division literature majors. Topics may include configurations of otherness in modern Arab culture; East-West debate; memory, trauma, and mourning; violence, narrative, and ethics; globalization, oil, and cultural insurgency; Arab culture in transnational context or questions of reception, exoticism, translation, and marketing. Genres may include prison narratives; novels by women and/or by refugees and exiles; 19th- and 20th-century travel narratives; Arabic romantic poetry; literary history of pre-1948; rise of novel Arab. Areas may range from geocentric look at Arabic focus on Maghreb or one country such as Algeria, Palestine, Iraq, Lebanon, or Egypt. May also be organized around Arab literature written in one specific language, namely English, Arabic, or Hebrew.

169. Continental African Authors. (4) Lecture, three hours. Required: one course from a 1A, 1B, 1C, 2A, 2B, 2W, 2OW, or English Composition 3 or 3H. Introduction to new set of African authors and attempts to discern similarities or differences they may have with major authors such as Achebe, Ngugi, Amos, Soyinka, etc. 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 outside of modernism. Postmodernism defined in three different ways—philosophically, scientifically, and economically. Emphasis on relationship of present novels to theories of structuralism and poststructuralism. Readings include authors such as Borges, Beckett, Nabokov, Pynchon, Fuentes, Grass, Böll, and Calvino. Consecutively scheduled with course C272. Undergraduate students may 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. Experience discussed from comparative perspectives. P/NP or letter grading.


177. Comparative Literature of Francophone and Anglophone Caribbean. (5) Seminar, three hours. Designed for juniors/seniors. Introduction to literature and culture of Caribbean basin from New Orleans to Haiti, Martinique, Guadeloupe, Jamaica, Antigua, and Trinidad. Topics include tracing of English colonial influences and rivalries, Haitian revolution and its literary legacies, emergence of nationalist discourses, interest in cultural identity, rhetoric of negritude, and poetics of black movement, 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 works in history of 20th-century South Asia and modern Indian literature and culture. Great works of modern Indian culture such as Rabindranath Tagore, Satyajit Ray, Faiz Ahmed Faiz, and U.R. Anantham Murthy, including novels, short stories, poems, and films, 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 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 independence from Britain under leaders like Mahatma Gandhi and expansion of Indian diaspora. Consecutively scheduled with course C278. P/NP or letter grading.

M179SL. Movement in Art, Philosophy, and Daily Life. (5) (Same as Middle Eastern Studies M179SL) Seminar, three hours; fieldwork, three hours. Exploration of relation between humans and world. Only relevant output of brain, irrespective of what may or may not go on inside it, is control over movements. In living among animals, sentience or consciousness exists to integrate often complex input and decide on course of action. Similarly, ownership and agency are inseparably associated with biological control that our movements. Movements play vital part in constructing psychosocial environment that permeates and surrounds us. Exploration of how humans and animals move, and how movement, as well as limitations of mobility, relate to personal and community identity. P/NP or letter grading.

180. Variable Topics: Medical Humanities in Comparative Contexts. (4) Seminar, three hours. Designed for juniors/senior. Study of medical humanities, giving pride of place to literary and cultural expressions in dialogue with other disciplines such as anthropology, art history, literature, psychology, and 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.

181. 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. Focus on 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 topics to be offered in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

186. Undergraduate Research Seminar: Comparative Literature. (4) Seminar, three hours. Preparation: satisfaction of Entry-Level Writing and College Writing requirements. Designed for undergraduate students interested in learning more about research and/or working towards their thesis. Literature in comparative perspective, 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 Culture. (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 testing our ability to understand something foreign imply taking universal standpoint? Can we make judgments about beliefs other than our own? Questions of cultural interpreta-
tion 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. Reading of some very com- plex and influential works by such writers as Claude Lévi-Strauss, Amitav Ghosh, James Clifford, Edward Said, Gayatri Spivak, and Erichauerbach. Concur- rently 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 finalize course 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. 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.

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 stud- ents. 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. Indi- vidual 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.

190. Research Colloquia in Comparative Literature. (4) Seminar, three hours. Designed to bring together students undertaking supervised tutorial research in seminar seminar seminar. Intensive seminar are faculty members discuss their own work or related work in discipline. Led by one supervising faculty member. May be re- peated for credit. P/NP grading.

191. Variable Topics in Comparative Literature. (4) Seminar, three hours. Designed for juniors/seniors. Study and discussion of limited periods and special- ized issues and approaches in literary theory, espe- cially in relationship to such course as history, philosophy, psychology, linguistics, anthropol- ogy. Development of culminating project required. Consult Schedule of Classes for topics to be offered in specific term. Individual credit for credit with topic change. P/NP or letter grading.

M191P. Careers in Humanities. (4) Same as English M191P) Seminar, three hours. Challenges misas- sumptions regarding humanities majors and their possible applications to life after graduation. Explora- tion of wide range of careers, with hands-on practice in crafting professional narrative. Guest lectures from UCLA professionals and alumni—especially in career planning and professional development. Students engage with workplace leaders, and simultaneously build profes- sional 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/se- niors. Individual intensive study, with scheduled meet- ings to be arranged between faculty member and stu- dent. Assigned reading and tangible evidence of mas- tery 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 compara- tive literature honors students. Development and cul- mination 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. No more than one course may be used to fulfill four-course requirement for Comparative Literature majors. May be repeated once for maximum of 8 units. Individual contract required. Letter grading.

199. Directed Reading in Major Project in Com- parative Literature. (2 to 4) Tutorial, three hours. Requisite: course 100. Limited to juniors/seniors. Su- pervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit with con- sent of chair. Individual contract required. P/NP or letter grading.

Graduate Courses


202. Classical Tradition: Epic, Tragedy, or Comedy. (4) Seminar, three hours. Preparation: reading knowl- edge 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 Eurip- ides or onto Chinese, Japanese, or Arabic, among others. Letter grading.

C205. Comic Vision. (4, Lecture, three hours. Prepa- ration: reading knowledge of one appropriate foreign language. Literary masterpieces, both dramatic and non-dramatic, selected to demonstrate varieties of comic expression. May be concurrently scheduled with course C105. Graduate students required to prepare papers based on texts read in original languages and may meet as group one additional hour each week. S/U or letter grading.

206. Archetypal Heroes in Literature. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Survey and analysis of functions of archetypal heroes such as Achilles, Ulysses, Prometheus, Oedipus, and Orpheus in literature from antiquity to modern period. S/U or letter grading.


220. Topics in Medieval Studies. (4) Seminar, four hours. Preparation: reading knowledge of one appro- priate foreign language. Examination of nature of oral and written traditions and the literary works related to them during first half of 20th century. Texts 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 additional hour each week. S/U or letter grading.

225. Post-Symbolist Poetics and Poetics. (5) Seminar, four hours. Study of specific poets and poetics related to them during first half of 20th century. Texts may include poets such as Baudelaire, Rim- mer, Verlaine, Mallarmé, and Saint-John Perse. May be concurrently scheduled with course C152. Grad- uate students required to prepare papers based on texts read in original languages and may meet as group one additional hour each week. S/U or letter grading.

226. Fantastic Fictions. (4) Seminar, three hours. Time and again in modern literature, corpses become conduits or catalysts for revelation. What are the ghosts that frequently can’t be tamed? How is it, their connection to national history or nation language or narrative? Readings from James Joyce, John Ban- ville, Henry James, Toni Morrison, Adolfo Bioy Casares, Juan Carlos Onetti, Carlos Fuentes, with films by Alejandro Amenabar, Andrei Tarkovsky, and Kenji Mizoguchi. May be concurrently scheduled with course C156. Graduate students have additional meetings with theoretical readings by Ben- jamin, Freud, Barthes, Derrida, Rabate, Ricks, and Caruth. S/U or letter grading.

2260. Literature and Visual Arts. (4) Lecture, three hours. Knowledge of art history valuable but not re- quired. Reading that literature and art are in some degree expressions of cultural and philosophical patterns of eras, study of relationships between writers and movements in painting, architecture, and music important. Interdisciplinary approach. Renon of similarities and differences between plastic and verbal arts in comparative study. May be repeated for credit with in- structor and/or topic change. May be concurrently scheduled with course C156. Graduate students re- quired to read works in original languages. S/U or letter grading.

2261. Fiction and History. (4) Seminar, three hours. Analysis of use of historical events, situations, and figures in literary works written in English and/or modern period. Texts and individual assignments range from Renaissance historical narratives (Italian humanists, Machiavelli) to 19th- and 20th-century novels by such authors as Thomas M. Dis- Lampedusa, Carpenter, and Kundara. Use of fictional methods by historians. Emphasis on how aesthetic, ideological, and political factors influence authors’
choice and use of historical material. May be concur-
rently scheduled with course C163. Graduate students re-
quired to prepare papers based on texts read in orig-
inal 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 Euro-
pean novel’s development from 19th to 21st century.
Use of authors such as Hardy, Strindberg, Lagerkwist,
Gide, Proust, Mann, Joyce, Kafka, Woolf, Nabokov,
Grass, Christa Wolf, and Enquist to focus on develop-
ment of themes such as shifting authority, gender con-
licts, change versus stability, formal experimentation,
and self-consciousness in narrative. May be concur-
rently scheduled with course C164. Graduate students re-
quired to prepare papers based on texts read in orig-
inal languages and to meet as group one additional
hour each week. S/U or letter grading.

266. Writing and Photographic Image. (4) Seminar,
three hours. Preparation: Reading knowledge of at least
one appropriate foreign language. Designed for graduate stu-
dents. Investigation of intertextual relations between
writing and photography in American and European con-
texts. Theory and practice of photography. Recent
paratextual framework framed by writing and discourse and
that, in turn, some forms of writing are framed by
photographic modes of representation. S/U or letter grading.

267. Comparative Arab Studies. (5) Seminar, three
hours. Limited to graduate students. Investigation of ways
in which Arab litterateurs, artists, and intellec-
tuals have sought to imagine and en-
struction viable structures of cultural empowerment on
pyre of political project of Arab nationalism and in
growing response to globalization and consolidation of
Arab nation and imperial ideologies in Arab world.
Recent attention to experimen-
tal modes of expression through which Arab art-
ists working in different genres have engaged with some
emerging questions about their
mission, vocation, and commitment (ilizam)
to fundamental concerns of Arab world, to responsible
mimetic urgency, and to general uses/potencies of rhetor-
ics of cultural politics in contexts of profound asymmetries of
power, temporality, and actualities. S/U or letter grading.

CM270. Alternate Traditions: In Search of Female
Voices in Contemporary Literature. (5) Same as
Gender Studies CM270.) Seminar, four hours. De-
signed for graduate students. Investigation of narra-
tive texts by contemporary French, German, English,
American, Spanish American, African, and Asian women
in the context of cross-cultural politics.
Common themes, problems, and techniques. Concur-
rrently scheduled with course CM170. S/U or letter grading.

271. Imaginary Women. (4) Seminar, three
hours. Preparation: reading knowledge of at least one
appropriate foreign language. Examination of archetypal female
voices in contemporary literature. Focus on issues of
position of women in cultures and ideology of authors.
May be concurrently scheduled with course C172.
S/U or letter grading.

272. Aesthetics and Literature. (4) Seminar, three
hours. Preparation: reading knowledge of at least one
appropriate foreign language. Study of postmodern novel as it de-
veloped out of modernism. Postmodernism defined in
three different ways—philosophically, sociologically, and
economically. Emphasis on relationship of recent
novels to theories of structuralism and poststructur-
alism. Readings include authors such as Borges,
Beckett, Nabokov, Pynchon, Fuentes, Grass, Böll, and
Calvino. Concurrently scheduled with course C172.
Graduate students required to meet as group one addi-
tional hour each week. S/U or letter grading.

274. Theorizing Third World. (4) (Same as
Asian American Studies CM261.) Seminar, three
hours. Investigation of all three ways—philosophically,
scienti-

C265. Seminar, three hours. Preparation: reading
knowledge of at least one appropriate foreign language.
Examination of archetypal female
voices in contemporary literature. Focus on issues of
position of women in cultures and ideology of authors.
May be concurrently scheduled with course C172.
S/U or letter grading.

277. Caribbean Literature from Negritude to Dias-
pora. (4) Seminar, three hours: Historical approach to
modern postcolonial and postemancipation Caribbean lit-
terature, retracing search for cultural identity, beginning
with nénigritude movement’s claim to Africa as ex-
pansional homeland, through Aimé Césaire’s
retour au pays natal and ending with consideration of
dispersion of identities in work of writers and intellec-
tuals who contend with problem of diasporic Carib-
bean culture. S/U or letter grading.

278. India Ink: Literature and Culture of Modern
South Asia. (5) Seminar, three hours. Survey of signif-
cant issues in history of 20th-century Indian literature
and culture. Great works of modern Indian culture by
such authors as Tagore, Saugat Ray, Faiz Ahmed Faiz, and U.R. Anantha Murthy,
including novels, short stories, poetry, films, 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 material changes that accompanied it. Explora-
tion of manner in which literature and culture have de-
veloped in interaction with powerful social forces such
as struggle for national independence from
Britain under leaders like Mahatma Gandhi and ex-
pansion of Indian diaspora. Concurrently scheduled
with course C177. S/U or letter grading.

279. Subaltern Studies: Colonial Histories and Cul-
tural Critique. (5) Seminar, three hours. Examination of
certain links between practice of cultural criticism
and problems in historiography of colonial and post-
colonial societies. Use of key texts by members of
Subaltern Studies collective of Indian historians to ex-
pire some central issues arising from this relation-
ship. What kind of interdisciplinary space is produced
dialog of history and literary and cultural theory?
Attention to literary texts to practice such interdisci-
plinary criticism. Nature of modernity in colonial set-
ing. What is nature of bourgeoisie in colonial society?
What kind of modernization does it see? What is rela-
tionship of modern metropolitan bourgeoisie to inde-
 nous one? S/U or letter grading.

280. Latin American Literature in Comparative
Perspective. (4) Seminar, three hours. Preparation:
reading knowledge of one foreign language. In-depth
study of one topic of Latin American literature in com-
parative context. May be repeated for credit. S/U or
letter grading.

284. Theories of Translation. (4) Seminar, three
hours. Examination of various approaches to concept
of translation and to its signifcance for literary studies.
Readings include authors such as Matthew Arnold,
Walter Benjamin, George Steiner, and Susan Bassnett.
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 heuristically, that is, on
basis of texts participating students translate, and
presentation of student work for discussion. Opportunity
for students to determine whether they have de-
sire and talent to pursue literary translation as part of
their professional lives. S/U or letter grading.

C286. Seminar, three hours; tutorial, one hour. Preparation:

289. Theory of Film and Literature. (5) Seminar,
three hours; film screenings, two hours. Study of redefi-
ition and aims of theories of film and literature. Appro-
aches vary by instructor (e.g., postcolonialism, psy-
chanalysis, semiotics, transnationalism, gender theory).
S/U or letter grading.

290. Contemporary Theories of Criticism. (4) Sem-
inar, three hours. Requisite: course 200A. Advanced
course in theory of literature focusing on structuralist,
psychoanalytic, and Manxist approaches. 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
criticism and literary theory. May be repeated for credit.
S/U or letter grading.

292. Theories of Empire. (4) Seminar, three
hours. History of theorizations of modern imperialism and col-
lonization since relevant writings of Karl Marx and Frie-
drich Engels. Examination of landmark the-
ories of empire and consideration of whether or not
they may be said to constitute coherent tradition or line
of the theoretical development. S/U or letter grading.

299. Aesthetics and Literature. (4) Seminar,
three hours. Preparation: reading knowledge of one appro-
priate foreign language. Study of literary theory
through exploration of approaches to literature by phi-

Isochrones grounded on analytic tradition. Careful attention to concepts of truth, meaning, expression, representation, metaphor, fiction, and literature. 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.


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. UC/UC extension in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Limited to graduate comparative literature students. Necessary for students in comparative literature who need additional individual study and research. May be repeated for credit. S/U or letter grading.


597. Preparation for MA and PhD Examinations. (2 to 12) Tutorial, to be arranged. Limited to graduate students. Preparation for MA comprehensive examination or PhD qualifying examinations. May be repeated for credit. S/U grading.


Computation and Systems Biology

Undergraduate Major

Computational and Systems Biology BS

Computational and Systems Biology majors select a coherent integration of courses from one of five designated concentrations: bioinformatics, biological data sciences, biomedical systems, neurosystems, or systems biology. The synergy for all concentrations is integrative systems, information, and computational systems biology; and 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 five designated concentrations in bioinformatics, biological data sciences, biomedical systems, neurosystems, or systems biology. 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.

Overview

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 five designated concentrations in bioinformatics, biological data sciences, biomedical systems, neurosystems, or systems biology. 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 five designated concentrations: bioinformatics, biological data sciences, biomedical systems, neurosystems, or systems biology. The synergy for all concentrations 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 concentration emphasizes different systems or modalities, and modeling or other computational approaches. For students interested in broad options for postgraduate studies in life sciences and related areas, including medicine, the systems biology concentration covers the widest spectrum of quantitative systems studies at all levels. The other concentrations are more focused. For example, bioinformatics is more focused on computational aspects of genetics and biology at molecular and cellular levels. Students normally select one, but because the concentrations have substantial methodological overlap, well-justified combinations are also possible.

The bioinformatics concentration 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 researching how the genome encodes the capabilities of the human mind.

The biological data sciences concentration addresses a diverse set of biological questions ranging from medicine, to genomics, physiology, pharmacology, neuroscience, 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 coursework 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 concentration has a strong focus and deep integration with life sciences.

The biomedical systems concentration is designed for students interested primarily in medical system studies; the systems aspects of biomedical, surgical, or other biomedical engineering system devices including MEMS or nanoscale system devices; and use of dynamic biosystem modeling for optimizing or developing new clinical diagnostic or therapeutic protocols. Example research problems include feedback biocontrol system model development for imaging-based medical diagnosis and optimal control of therapeutic drug delivery.

The neurosystems concentration is designed for students interested primarily in the nervous system, or quantitative neurophysiology, with emphasis on neural system networks that control behavior at molecular, cellular, and whole-organism levels; neural information and control systems; and systems electrophysiology and neural electronic systems for controlling prostheses. Example research problems include analysis of (real) neural networks in normal and abnormal brain function, design of prosthetic systems for hearing (cochlear implant) and walking (spinal cord stimulation) recovery, and MEMS-based brain-machine interface devices.

The systems biology concentration is designed for students who want to understand biological systems holistically and quantitatively, and pursue research with an emphasis on systems and integrative principles in biology or medicine. The curriculum imparts an understanding of systems biology (often called the new physiology) using dynamical systems modeling, control, computer simulation, and other computational methods integrated with the biology. For example, at the cellular level, systems biologists integrate proteomic, transcriptomic, and
metabolomic information into a more complete systems picture of living organisms. However, the methodologies include single-scale or multiscale modeling for enhancing understanding of regulatory biomechanisms at all levels—molecular, cellular, organ, and/or whole-organism levels—and are prevalent in population and ecosystem studies, as well as systems-level problems in medicine and pharmacology.

**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 critical thinking skills, and familiarity with research techniques, needed to successfully pursue a research project
- 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

**Premajor**

Students entering UCLA directly from high school or first-term transfer students who declare the Computational and Systems Biology premajor 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 premajor 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 premajor GPA of a minimum of 2.7 by taking at least one premajor course at UCLA for a letter grade.

Requests to declare the premajor should be sent by e-mail to the program. For more information, see the program website.

All courses taken for the premajor must be completed with a grade of C or better. Premajor courses Program in Computing 10B and 10C, or Computer Science 32 are required for students following the Biological Data Sciences or Bioinformatics concentrations, but do not have to be completed prior to applying to the major. Computational and Systems Biology M32 or Mathematics 32A is required for students following the Bioinformatics, Biomedical Systems, or Systems Biology concentrations, but does not have to be completed prior to applying to the major.

All students are identified as premajors until they satisfy the preparation for the major requirements by achieving (1) a minimum 2.7 GPA in all premajor courses, and (2) a minimum grade of C in all premajor courses.

**Preparation for the Major**

**Required:** A minimum of 66 to 82 units (depending on the calculus series, computer programming courses, and additional requisites for specific concentrations), including Chemistry and Biochemistry 14A, 14B, or 14BL, or 20A, 20B, and 20L; Computer Science 31 or Program in Computing 10A; Life Sciences 7A, 7B, and 7C; Life Sciences 30A, 30B, 40, and 41; 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 concentration must also complete Computer Science 32 or Program in Computing 10B and 10C.

Students following the biological data sciences concentration must also complete Computer Science 32.

Students following the bioinformatics, biomedicine, or systems biology concentrations must also complete Computational and Systems Biology M32 (same as Life Sciences M32 and Mathematics M32T) or Mathematics 32A.

Additional lower-division courses may be required to desired concentration courses.

**Policies**

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.

**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 premajor 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.

**The Major**

The major consists of a methodology core of seven courses (27 units) and a concentration 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: 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 198A and 198B.

**Concentrations**

**Required:** A minimum of five courses (20 units minimum) from the concentrations listed below. No 199 course may be applied toward any concentration. An approved list of elective courses for each concentration is available in the program office and on the department website.

**Bioinformatics (at least 20 units):** Computer Science CM121, CM124, Molecular, Cell, and Developmental Biology 165A (or 144), Physiological Science 125 (or Molecular, Cell, and Developmental Biology 187AL), and one additional course from the bioinformatics approved course list. Note: Computer Science 32 or Program in Computing 10B and 10C, and Computational and Systems Biology M32 (same as Life Sciences M32 or Mathematics M32T) or Mathematics 32A are completed in the premajor.

**Biological Data Sciences (at least 20 units):** Computer Science CM121, M146 (or Statistics 101C or C161), 180, and two additional courses from the biological data sciences approved list. Note: Computer Science 32 is completed in the premajor.

**Biomedical Systems (at least 20 units):** Bioengineering 100, C102 (or 110), Computational and Systems Biology M186, Electrical and Computer Engineering 133A (or Mathematics 151A), and one additional course from the biomedical systems approved course list. Note: Computational and Systems Biology M32 (same as Life Sciences M32 or Mathematics M32T) or Mathematics 32A is completed in the premajor.

**Neurosystems (20 units):** Computational and Systems Biology M186 (or Computer Science M182), Neurosciences M101A, M101B, 102 (or Electrical and Computer Engineering 113 or Mathematics 155), and one additional course from the neurosystems approved list.

**Systems Biology (at least 20 units):** Computational and Systems Biology M186, Ecology and Evolutionary Biology 170 (or Physiological Science 166), Molecular, Cell, and Developmental Biology 100 (or 144 or 165A), Physiological Science 125 (or Molecular, Cell, and Developmental Biology 187AL), and one additional course from the systems biology approved list. Note: Computational and Systems Biology M32 (same as Life Sciences M32 or Mathematics 32A)
M32T) or Mathematics 32A is completed in the premajor.

**Policies**
Each course in the major must be passed with a grade of C or better.

**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.

**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, four core courses, and one elective course that provide the needed background in structural biology, logic microscopy, and biochemistry. Students who complete the minor have sufficient training to apply the knowledge they learn in graduate school or employment of their choice.

**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. 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 structural biology, logic microscopy, and biochemistry. Students who complete the minor have sufficient training to apply the knowledge they learn in graduate school or employment of their choice.

**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):** Computational and Systems Biology M184, M186, Electrical and Computer Engineering 102, 141 (or Mechanical and Aerospace Engineering 171A), Molecular, Cell, and Developmental Biology M140 or 144, and one elective course selected from Mathematics 134, 151A, 151B, 170A, 170B, 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.

**Computational and Systems 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.
20. **M32. Essential Calculus for Mathematical Biologists. (4)** Same as Mathematics M32T and Life Sciences M32L. 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, vectors, 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 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.

185. 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 31, Mechanical Engineering M20, or Physics 10A, 10B, or Physics 10C. Survey course designed to introduce students to computational and systems modeling and engineering in biological and medicine, providing motivation, flavor, culture, and cutting-edge contributions in computational biosciences and aiming for more informed basis for focused studies by students with computational and systems biology interests. Presentations by individual UCLA researchers discussing their active computational and systems biology research. P/NP grading.

185C. Research Opportunities in Computational and Systems Biology. (4) Same as Bioengineering M185 and Computer Science M185.) Lecture, two hours; discussion, two hours. Requisites: course M184, Life Sciences 7C, Mathematics 33A, 33B. Introduction to interdisciplinary laboratory research experience for students interested in computational and systems biology to prepare and initiate students for active engagement in research. Presentation of potential projects by faculty members and student visits to individual laboratories and participation in ongoing projects. P/NP or letter grading.

186. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) Same as Bioengineering CM186, Computer Science CM186, and Molecular and Cell Biology M178.) Lecture, four hours; laboratory, two hours; discussion, one hour. Requisites: Life Sciences 30A, 30B, 30C or Mathematics 31A, 31B, or 32A or 32B. Computer imaging has become an integral tool to our everyday lives and to nearly every field of life sciences. Quantitative approach to learning about basic properties of digital signals and surveying fundamental methods for processing and analyzing images. Letter grading.

M140. Biological Modeling: Mathematical and Computational Approaches. (5) Formerly numbered M150.) (Same as Ecology and Evolutionary Biology M159.) Lecture, four hours; laboratory, three hours. Requisites: Life Sciences 1A, 7B, 7C, and Mathematics 33A or 40 or Statistics 13, or Mathematics 3A, 3B, and 3C, or Mathematics 31A, 31B, and 32A or 32B. Digital imaging has become an integral tool to our everyday lives and to nearly every field of life sciences. Quantitative approach to learning about basic properties of digital signals and surveying fundamental methods for processing and analyzing images. Letter grading.

M150. Biological Modeling: Mathematical and Computational Approaches. (5) (Same as Molecular, Cell, and Developmental Biology M130.) Lecture, three hours; laboratory, two hours. Requisites: Life Sciences 7A, 7B, 7C, and Mathematics 33A or 40 or Statistics 13, or Mathematics 3A, 3B, and 3C, or Mathematics 31A, 31B, and 32A or 32B. Digital imaging has become an integral tool to our everyday lives and to nearly every field of life sciences. Quantitative approach to learning about basic properties of digital signals and surveying fundamental methods for processing and analyzing images. Letter grading.

M178. Quantitative Regulatory Biology and Signal Transduction. (4) (Same as Microbiology M178 and Physiology Science M178.) Lecture, three hours; laboratory, 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.

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 31, Mechanical Engineering M20, or Physics 10A, 10B, or Physics 10C. Survey course designed to introduce students to computational and systems modeling and engineering in biological and medicine, providing motivation, flavor, culture, and cutting-edge contributions in computational biosciences and aiming for more informed basis for focused studies by students with computational and systems biology interests. Presentations by individual UCLA researchers discussing their active computational and systems biology research. P/NP grading.

185. Research Opportunities in Computational and Systems Biology. (4) Same as Bioengineering M185 and Computer Science M185.) Lecture, two hours; discussion, two hours. Requisites: course M184, Life Sciences 7C, Mathematics 33A, 33B. Introduction to interdisciplinary laboratory research experience for students interested in computational and systems biology to prepare and initiate students for active engagement in research. Presentation of potential projects by faculty members and student visits to individual laboratories and participation in ongoing projects. P/NP or letter grading.

186. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) Same as Bioengineering CM186, Computer Science CM186, and Molecular and Cell Biology M178.) Lecture, four hours; laboratory, two hours; discussion, one hour. Requisites: Life Sciences 30A, 30B, 30C or Mathematics 31A, 31B, 32A or 32B, or Mathematics 3A, 3B, and 3C, or Mathematics 31A, 31B, 3B, or 32A or 32B, or Mathematics 3A, 3B, 3C, or Mathematics 31A, 31B, 3B, or 32A or 32B. Dynamic biosystem modeling and computer simulation methods for studying analyzing biological/biomedical processes and systems at different levels of organization. Intermediate linear and nonlinear control system, multicompartamental, epidemiological, pharmacokinetic, and other modeling methods applied to life sciences problems at molecular, cellular, organ, and population levels. Both theory- and data-driven modeling, with focus on translating modeling 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, in-person, 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 search for research results. Major emphasis on effective research reporting, both oral and written. Letter grading.

189. Advanced Honors Seminars. (1 Seminar) Three hours. Limited to 12 students. Requisites: admission as an 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 toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
Eric M. Sobel, PhD, in Residence
Marc A. Suchard, MD, PhD
Wei Wang, PhD

Professors Emerti
Abdelmonem A. Aifi, PhD
Henry S.C. Huang, DSc
Robert I. Jennrich, PhD
Elliott M. Landaw, MD, PhD

Associate Professors
Jason Ernst, PhD
Bogdan Pasiuc, PhD

Assistant Professors
Jingyi Jessica Li, PhD
Harold Pimentel, PhD
Sriram Sankararaman, PhD
Daniel J. Tward, PhD

Adjunct Professors
David Elashoff, PhD
Jeffrey A. Gornbein, DrPH

Adjunct Associate Professors
Maria-Rita R. D’Orsogna, PhD
Ning Li, PhD
Mary E. Sehl, MD, PhD

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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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
Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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
Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current and 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
170A. Introductory Biomathematics for Medical Investigators. (4) Lecture, three hours; discussion, one hour. Preparation: knowledge of linear algebra and differential equations. Applications of biological systems, evolutionary principles, and network design and dynamics in cancer initiation and progression, gene expression, epistasis, response to fluctuating environments, network structure, and functional traits. S/U or letter grading.


M207A. Theoretical Genetic Modeling. (4) Same as Biostatistics M272. Lecture, four hours; discussion, one hour. Preparation: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, and 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. Preparation: two computer programming courses.

209. Mechanisms and Modeling in Bioanalytical Assays. (4) Lecture, three hours. Preparation: knowledge of basic physical chemistry and ordinary differential equations. Recommended requisite: course 201. Review of basic physical mechanisms and mathematical analyses used in common bioanalytical assays. Topics include chromatography, electrophoresis, blotting, DNA sequencing, PCR, SELEX, Chi-sequence traces, FACS, FRAP, and FISH. S/U or letter grading.

210. Optimization Methods in Biology. (4) Lecture, four hours. Preparation: undergraduate mathematical analysis and linear algebra; familiarity with programming languages such as Matlab or C. Mathematical biology relies heavily on finite-dimensional optimization. Survey of theory and numerical methods for discrete and continuous optimization, with applications to biological modeling, model selection, Bayesian hypothesis testing, and numerical methods. 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: course in statistics and probability. Theoretical models in molecular evolution focusing on phylogenetic techniques. Topics include evolutionary tree reconstruction methods, studies of viral evolution, phylogeny 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.


M230. Applied Bayesian Inference. (4) (Same as Biostatistics M234.) Lecture, three hours; laboratory, one hour. Recommended prerequisite: Biostatistics 200B or another substantial regression course. Bayesian approach to statistical inference, with emphasis on biomedical application and statistical hypothesis testing. Topics include large sample Bayes inference from likelihoods, noninformative and conjugate priors, empirical Bayes, Bayesian approaches to linear and nonlinear regression, Bayesian hypothesis testing, and numerical methods. S/U or letter grading.


239. 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 students, one invited clinical faculty member, and course director. Development of critical ability to evaluate trial design and pitfalls. S/U or letter grading.


M260C. Methodology in Clinical Research III. (4) (Same as Medicine 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 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, plagiarism, the role of ethics in basic research, principles and practice of research on humans, conflicts of interest, Institutional Review Board (IRB), and related topics. S/U or letter grading.

M262. Communication of Science. (2) (Same as Psychiatry M262.) Discussion, one hour. Preparation: completion of professional health sciences degree (MD, DDS, DNBSC, or PhD). Overview of principles of clinical pharmacology, especially as they relate to clinical and translational medicine and to advances in clinical practice and gene therapy, and genomics. Letter grading.


M263. Clinical Pharmacology. (2) (Same as Medicine M263 and Psychiatry M263.) Lecture, two hours. Preparation: completion of professional health sciences degree (MD, DDS, DNBSC, or PhD). Overview of principles of clinical pharmacology, especially as they relate to clinical and translational medicine and to advances in clinical practice and gene therapy, and genomics. Letter grading.

M264. Applied Data Collection and Analysis. (4) (Same as Biostatistics M264.) Lecture, three hours; discussion, one hour. Preparation: Biostatistics 200B or another substantial regression course. Analysis of continuous responses for linear and nonlinear regression, dealing with constraints, robust estimation, and general maximum likelihood methods. Letter grading.

M265. Survival Analysis. (4) (Same as Biostatistics M265.) Lecture, three hours; discussion, one hour. Preparation: Biostatistics 200B or another substantial regression course. Analysis of survival data. S/U or letter grading.

M266A. Applied Regression Analysis in Medical Sciences. (4) Lecture, three hours; laboratory, one hour. Preparation: Biostatistics 202B or Statistics 100C. Statistical-science framework. S/U or letter grading.

M270. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Bioinformatics M223 and Statistics M234.) Lecture, three hours; discussion, one hour. Preparation: elementary calculus and linear algebra. Required preparation: Biostatistics M234 or Statistics 100C. 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 bio- logical networks, with emphasis on understanding of basic statistical concepts and use of statistical inference to solve biological problems. S/U or letter grading.

M270A. Statistical Computing. (4) (Same as Biostatistics M280 and Statistics M230.) Lecture, three hours. Requisites: Mathematics 115A, Statistics 100C. 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 biological problems. S/U or letter grading.

267A. Advanced Biostatistics. (4) Lecture, three hours; discussion, one hour; course 266A. Continuation of course 266A. Some traditional multivariate methods, such as principle components, factor analysis, cluster analysis, and more contemporary methods, including recursive partitioning and missing data. Multilevel and longitudinal analysis. Letter grading.

M271. Statistical Methods in Computational Biology. (4) (Same as Bioinformatics M223 and Statistics M234.) Lecture, three hours; discussion, one hour. Preparation: elementary calculus and linear algebra. Requisite: Biostatistics M234 or Statistics 100C. 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 biological problems. S/U or letter grading.

M272. Statistical Inference for Biomedical Systems. (4) (Same as Biostatistics M270 and Medicine M270D.) Lecture, four hours; outside study, eight hours. Required preparation: course 220 or Bioengineering CM286 or CM296. Estimation methodology and sample size determination for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for design of optimal experiments for developing and quantifying models, with special focus on optimal sampling schedule design and selection of optimal kinetic models. Exploration of computational software for model building and optimal experiment design via applications in physiology and pharmacology. Letter grading.

M281. Survival Analysis. (4) (Same as Biostatistics M281.) Lecture, three hours; discussion, one hour. Requisites: Biostatistics 200B or another substantial regression course. Topics include developing testable hypothesis data collection, methods for appropriate comparison, analysis and presentation of their findings (e.g., for master's thesis and subsequent articles). Students evaluate their own data. Databases provided for use in completing exercises for those without available data. Letter grading.

285. Introduction to High-Throughput Data Analysis. (4) Seminar, three hours. Requisites: courses M260A, M262B. Introduction to high-throughput data analysis, including DNA microarray technologies and computational techniques.
next-generation sequencing technology. Presentation of statistical methods and software for handling com-
plex data produced by experiments using these tech-
nologies. Some hands-on training on data analysis
provided. S/U or letter grading.

299. Special Topics in Clinical Research. (2 to 6)
Seminar, three hours. Requisites: courses M260A,
M260B. Advanced study and analysis of current
topics in clinical research. Discussion of current re-
search 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 Bio-
mathematics. (2 to 12) Tutorial, to be arranged. Indi-
vidual 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
8) Tutorial, to be arranged. Individual study. S/U
grading.

599. Research for and Preparation of PhD Disses-
tation. (2 to 12) Tutorial, to be arranged. S/U
grading.

**Computer Science**

*Henry Samueli School of Engineering and
Applied Science*

277 Engineering VI
Box 951596
Los Angeles, CA 90095-1596

**Computer Science**

310-825-3886

Eliezer M. Gafni, PhD, Chair
Richard E. Korf, PhD, Vice Chair—Undergraduate Studies
Todd D. Millstein, PhD, Vice Chair—Graduate Studies
Amit Sahai, PhD, Vice Chair—Academic Advancement

**Faculty Roster**

Professors

Jung-hoo (John) Cho, PhD
Jason (Jingsheng) Cong, PhD (Volgenau Professor of Engineering Excellence)
Adnan Y. Darwiche, PhD
Joseph J. DiStefano III, PhD
Eleanor Eskin, PhD
Eliezer M. Gafni, PhD
Eran Halperin, PhD
Miryung Kim, PhD
Richard E. Korf, PhD
Songwu Lu, PhD
Todd D. Millstein, PhD
Stanley J. Osher, PhD
Rafael Ostrovsky, PhD
Jens Palsberg, PhD
Miodrag Potkonjak, PhD
Glenn D. Reinman, PhD
Amit Sahai, PhD (Symantec Term Professor of Computer Science)
Majid Sarrafzadeh, PhD
Stefano Soatto, PhD
Mani B. Srivastava, PhD
Demetri Terzopoulos, PhD
Mihaela Van der Schaar, PhD
George Varghese, PhD
Wei Wang, PhD
Lixia Zhang, PhD
Song-Chun Zhu, PhD

Professors Emeriti

Aligirdas A. Avizienis, PhD
Rajive L. Bagrodia, PhD
Alfonso F. Cardenas, PhD
Jack W. Carlyle, PhD
Wesley W. Chu, PhD
Michael G. Dyer, PhD
Milos D. Ercegovac, PhD
Sheila A. Greibach, PhD
Leonard Kleinrock, PhD
Allen Klinger, PhD
Lawrence P. McNamee, PhD
Richard R. Munzt, PhD
D. Stott Parker, Jr., PhD
Judea Pearl, PhD
David A. Rennels, PhD
Carlo A. Zaniolo, PhD (Norman E. Friedmann Professor Emeritus of Knowledge Sciences)

Associate Professors

Jason Ernst, PhD
Alyson K. Fletcher, PhD
Raghuh Meka, PhD
Alexander Sherstov, PhD
Yizhou Sun, PhD
Yuval Tamir, PhD
Guy Van den Broeck, PhD
Harry G. Xu, PhD

Assistant Professors

Omid Abari, PhD
Kai-Wei Chang, PhD
Quanquan Gu, PhD
Chol-Jui Hsieh, PhD
Baharan Mirzasoleiman, PhD
Ravi Natarjali, PhD
Anthony J. Nowatzki, PhD
Nanyun Peng, PhD
Sriram Sankaramaram, PhD
Fabien Scalzo, PhD, in Residence

Senior Lecturers SOE
Paul R. Eggert, PhD
David A. Smallberg, MS

Adjunct Professors

David E. Heckerman, PhD
Van Jacobsen, MS
Alan C. Kay, PhD

Adjunct Associate Professors

Carey S. Nachenberg, MS
Giovanni Pau, PhD
Ramin Ramezani, PhD

Adjunct Assistant Professor

Achuta Kadambi, PhD

**Overview**

Computer science is concerned with the de-
sign, modeling, analysis, and applications of
computer systems. Its study at UCLA provides
education at the undergraduate and graduate
levels necessary to understand, design, imple-
ment, and use the software and hardware of
digital computers and digital systems. The pro-
grams offer comprehensive and integrated

studies of subjects in computer system archi-
tecture, computer networks, distributed com-
puter systems, programming languages and
software systems, information and data man-
gement, artificial intelligence, computer sci-
ence theory, computational systems biology and
bioinformatics, and computer vision and graphics.

The undergraduate and graduate studies and
research projects in the Department of Com-
puter Science are supported by significant
computing resources. In addition to the depart-
mental computing facility, there are over a
dozen research laboratories specializing in ar-
rows such as distributed systems, multimedia
computer communications, distributed sensor
networks, VLSI systems, VLSI CAD, embedded
and reconfigurable systems, computer graph-
ics, bioinformatics, and artificial intelligence.

Also, the Cognitive Systems Laboratory is en-
gaged in studying computer systems that emu-
late or support human reasoning. The Bio-
cybernetics Laboratory is devoted to
multidisciplinary research involving the applica-
tion of engineering and computer science
methods to problems in biology and medicine.

**Graduate Study**

The Department offers minor fields for graduate
students seeking engineering degrees.

**Undergraduate Majors**

**Computer Science and Engineering BS**

The Computer Science and Engineering curric-
ulum at UCLA provides students with the edu-
cation and training necessary to design, imple-
ment, test, and utilize the hardware and
software of digital computers and digital sys-
tems. The curriculum has components span-
ning both the Computer Science and Electrical
and Computer Engineering departments. The
curriculum covers all aspects of computer sys-
tems from electronic design through logic de-
sign, MSI, LSI, and VLSI concepts; device utili-
zation, machine language design, implementa-
tion and programming, operating system
concepts, systems programming, net-
working fundamentals, and higher-level lan-
guage skills; and their application. Students are
prepared for employment in a wide spectrum of
high-technology industries.

The computer science and engineering pro-
gram is accredited by the Computing Accredi-
tation Commission and the Engineering Accredi-
tation Commission of ABET.

**Capstone Major**

The Computer Science and Engineering major
is a designated capstone major. Computer Sci-
ence and Engineering students complete a ma-
jor product design course. Graduates are ex-
pected to apply the basic mathematical and
scientific concepts that underlie modern com-
puter science and engineering: design a soft-
ware 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

Preparation for the Major

Required: Computer Science 1, 31, 32, 33, 35L, M51A; Electrical and Computer Engineering S; 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

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 and Engineering, and Computer Science, majors are designated capstone majors. Computer Science and Engineering students complete a major product design course. Computer Science 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

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 design course (Computer Science 152B); 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; 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.

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.

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Policies

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

**Preparation for the Major**

**Required:** Computer Science 1 (or Electrical and Computer Engineering 1), 31, 32, 33, 35L, M31A (or Electrical and Computer Engineering M16); Electrical and Computer Engineering 3; Engineering 26C; 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.

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

**Undergraduate Minor**

**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 in the Office of Academic and Student Affairs of the Henry Samueli School of Engineering and Applied Science, 6426 Boelter Hall.

**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, Physiological 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.

**Graduate Major**

**Computer Science MS, PhD**

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 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 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; discussion, one hour. Introduction to department resources and principal topics and key ideas in computer science and computer engineering. Assignments given to bolster independent study and writing skills. 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.

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 courses. Enforced requisite: course 32. 330. Teaches students how to use computers as tools for problem solving, creativity, and exploration through design and implementation of computer programs. Key topics include data types, operators, 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, etc. Letter grading.

35L. Software Construction. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 31. Fundamentals of tools and environments used in software construction projects, particularly open-source platforms used in upper-division computer science courses. Software practice through collaborative student project. Letter grading.

M51A. Logic Design of Digital Systems. (4) (Same as Electrical and Computer Engineering M16.) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to digital systems. Specification and implementation of combinational and sequential systems. Standard logic modules and programmable logic arrays. Specification and implementation of algorithmic systems: data and control sections. Number systems and arithmetic algorithms. Error control codes for digital information. Letter grading.

97. Variable Topics in Computer Science. (1 to 4) Lecture, one to four hours; discussion, zero to two hours. Designed for free-choice seminars. 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.

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 computer science units. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses


112. Modeling Uncertainty in Information Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 111 and one course from Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for juniors/seniors. Probability and stochastic process models as applied in computer science. Basic methodological tools include random variables, conditional probability, expectation and higher moments. Topics include: Markov chains, the law of large numbers, weak and strong law of large numbers, central limit theorem, confidence intervals, etc. Letter grading.

117. Computer Networks: Physical Layer. (4) (Formerly numbered M171.) Lecture, two hours; discussion, two hours; laboratory, two hours; outside study, six hours. Not open to students with credit for course 117. Introduction to computer communications concepts underlying and supporting modern networks, with focus on wireless communications and media access layers of network protocol stack. Systems, concepts, and network protocols are studied using experimental platforms (IEEE 802.11) and ad hoc wireless and personal area networks (e.g., Bluetooth, ZigBee). Experimental project based on mobile radio-equipped devices (smart phones, tablets, etc.) as sensor platforms for personal applications such as wireless health, positioning, and environmental awareness, and 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. Introduction to design and performance evaluation of computer networks, including network architectures, routing, internetworking and modeling, sensing, node architecture and contributing Internet of Things. Topics include introduction to genetics, identification of genes involved in disease, inferring human population history, technologies for obtaining genetic information, formulating interdisciplinary problems as computational problems and then solving those problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM224. Letter grading.

130. Software Engineering. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Requisites: courses 111, 131. Recommended requisite: Engr 183EW or 185EW. Principles of software construction: program specification, program proving, modularity, abstract data types, composite design, software tools, software control systems, program testing, team programming. Letter grading.

131. Programming Languages. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisites: courses 33, 35L. Basic concepts in design and use of programming languages, including abstraction, modularity, control mechanisms, types, declarations, syntax, and semantics. Study of several different language paradigms, including functional, object-oriented, and logic programming. Letter grading.

132. Compiler Construction. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 131. Compiler structure; lexical and syntactic analysis; semantic analysis and code generation; theory of parsing. Letter grading.

133. Parallel and Distributed Computing. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 131, M151B. Distributed memory and shared memory parallel architectures; asynchronous parallel languages: MPI, Maisie; primitives for parallel computation; specification of parallelism, interprocess communication and synchronization; design of parallel programs for scientific computation and distributed systems. Letter grading.

134. Distributed Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 118. Covers fundamental concepts regarding design and implementation of distributed systems. Topics include synchronization (e.g., clock synchronization, logical clocks, vector clock), failure recovery (e.g., snapshotting, primary-backup), consistency models (e.g., linearizability, eventual, causal), consensus protocols (e.g., Paxos, Raft), distributed transactions, and more. Student participation in hands-on, practical experience through multiple programming assignments that work through steps of creating fault-tolerant, shared key/value store. Exploration of
136. Introduction to Computer Security. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 111c. Introduction to basic concepts of information security necessary for students to understand risks and mitigations associated with protection of systems and data. Topics include security architecture, security threats and risk analysis, access control and authentication, cryptography, network security, secure application design, and ethics and law. Letter grading.

C137A. Prototyping Programming Languages. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 131. How different programming language paradigms provide dramatically different ways of thinking about computation and offer trade-offs on many dimensions, such as modularity, extensibility, expressiveness, and safety. Concrete exploration 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 evaluation 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 C237A. Letter grading.

C137B. Programming Language Design. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course C137A. Study of various programming languages and their design and implementation, and of language design research literature, that attempt to address problems of software systems that are bloated, buggy, and difficult to maintain and extend despite trend in computing toward ever-larger classes of applications. Concurrently scheduled with course C237A. Letter grading.

143. Database Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 180. Introductory survey of database systems. Emphasis on applications in environmental engineering, financial markets, multimedia data processing, network administration, and other areas. Letter grading.

145. Introduction to Data Mining. (4) Lecture, four hours; outside study, six hours. Enforced requisite: course 180. Introduction to data mining (process of automatic discovery of patterns, changes, associations, and anomalies in massive databases), knowledge discovery in databases, data design principles, transactions, concurrency, and recovery. Emphasis on database and transaction integrity and authorization. Letter grading.

148. Web Applications. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course C145. Conceptual background and practical experience for building effective and safe Web applications and first-hand experience with basic tools. Topics include basic Web architecture and protocol, XML and XML query language, mapping between XML and relational models, information retrieval model and theory, security and user model, Web services and distributed transactions. Letter grading.

154. Introduction to Machine Learning. (4) Lecture, four hours; discussion, two hours; outside study, seven hours. Enforced requisite: course 132, and Mathematics 180A, 180B, 180C. Introduction to breadth of data science. Foundations for modeling data sources, principles of operation of common tools for data analysis, and application of tools and models to data gathering and analysis. Topics include statistical foundations, regression, classification, kernel methods, clustering, expectation maximization, principal component analysis, decision theory, reinforcement learning and deep learning. Letter grading.

156. Introduction to Data Science. (4) (Same as Electrical and Computer Engineering M146.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 31 or Program in Computing 10A, and 10B, and one course from Civil and Environmental Engineering 131A, Mathematics 170A, 170B, 170E, or Statistics 100A. How to analyze data arising in real world so as to understand corresponding phenomenon. How to apply modern data analysis, and statistical modeling classically employed for prediction. Comprehensive, hands-on overview of data science domain by blending theoretical and practical instruction. Data science lifecycle: data selection and cleaning, feature engineering, model selection, and prediction methodologies. Letter grading.

M151B. Computer Systems Architecture. (4) (Same as Electrical and Computer Engineering M151BC.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 33, and M51A or Electrical and Computer Engineering M16. Recommended preparation: course 143. Fundamental concepts of computer organization and design, including CPU, memory hierarchy, pipelined processors, instruction set design, and concurrency. Letter grading.

M152A. Introductory Digital Design Laboratory. (2) (Same as Electrical and Computer Engineering M152.) Laboratory, four hours; outside study, two hours. Enforced requisite: course M51A or Electrical and Computer Engineering M16. Hands-on design, implementation, and testing of combinational and sequential digital logic circuits, use of computer-aided design tools for schematic capture and simulation, implementation of complex circuits using programmed array logic, design project. Letter grading.

M152B. Digital Design Project Laboratory. (4) Laboratory, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course M151B or Electrical and Computer Engineering M151BC. Laboratory, four hours; outside study, two hours. Requisites: course M51A or Electrical and Computer Engineering M16. Letter grading.

161. Fundamentals of Artificial Intelligence. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisite: course 180. Introduction to fundamental problem solving and knowledge representation paradigms of artificial intelligence. Introduction to Lisp with regular programming assignments. Space-state and problem reduction methods, brute-force and heuristic search, planning techniques, two-player games and search, and simplistic machines. Special topics in natural language processing, expert systems, vision, and parallel processing. Letter grading.


M171L. Data Communication Systems Laboratory. (2 to 4) (Same as Electrical and Computer Engineering M171L.) Laboratory, four to eight hours; outside study, two to four hours. Recommended preparation: course M152A. Limited to students with credit on course M171 1. Interpretation of modeling-signal aspects of digital systems and data communications through experience in using contemporary computer tools and hardware. Letter grading.

172. Real-Time Three-Dimensional Animation. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 32. Introduction to handling of geometry, appearance, and motion specifically for real-time animation. Emphasis on concepts, both on theoretical and practical levels. Completion of one quality real-time three-dimensional animation by following through from preproduction to postproduction. End product expected to include demonstrations, storytelling games, or machinima (use of real-time graphics engines to create cinematic productions). Focus on achieving highest quality productions that can be submitted to and win Academy Awards competition. Use of Unity Game Engine to make technical decisions to adapt stories to games. Introduction to interaction concepts, enabling students to create low-fidelity real-time three-dimensional animation and to concepts in artificial intelligence, enabling them to refine their interactions to create high-fidelity 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. Introduction to set of tools and techniques that modern graphics pipelines use to create realistic images in real time. How to position and manipulate objects in scene using geometric and camera transformations. How to create perspective and orthographic transformations. Basics of modeling primitives such as polygonal models and implicit and parametric surfaces. Basic ideas behind texturing, illuminating, and shading, and texture mapping. Letter grading.

174B. Introduction to Computer Graphics: Three-Dimensional Photography and Rendering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. State of art in three-dimensional photography and image-based rendering. How to use cameras and light to capture scenes as observed by the human eye. Emphasis on very realistic synthetic objects and characters (to) medicine (modeling of biological structures from imaging data), mixed reality (augmentation of video), and security (video surveillance). Fundamentals of tools for modeling and inferring geometric shape (and) photographic (reflectance, illumination) properties of objects and scenes, and for rendering and manipulating novel views. Letter grading.

C174C. Computer Animation. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. Designed for seniors. Introduction to computer animation, including basic principles of character modeling, forward and
inverse kinematics, forward and inverse-dynamics, motion capture animation techniques, physics-based animation of particles and systems, and motor control. Concurrently scheduled with course C274C. Letter grading.

180. Introduction to Algorithms and Complexity. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 32, Mathematics 61. Designed for junior/senior Computer Science majors. Introduction to design and analysis of algorithms. Divide-and-conquer, greedy method, dynamic programming; selection of prototypical algorithms; choice of data structures and representations; complexity measures: time, space, upper, lower bound; NP-completeness. Letter grading.

181. Introduction to Formal Languages and Automata Theory. (4) Lecture, four hours; discussion, two hours; outside study, five hours. Enforced requisites: courses 30A or 30B, and 31A or 31B. Design techniques: divide-and-conquer, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, and unstructured systems. Topics: Life Sciences 30A and 30B, or Mathematics 3A and 3B, or 31A and 31B. Recommended 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 biological systems. Basic methodology for transforming biological, biochemical, and physiological system diagrams, graphs, and mathematical expressions for studying their behavior. Structural models, formulated from basic conservation and mass action laws and feedback concepts, are further transformed into first-order differential equations, and implemented in simulation diagrams for quantifying and exploring biosystem 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.

183. Introduction to Cryptography. (4) Lecture, four hours; laboratory, two hours; outside study, four hours. Preparation: knowledge of basic probability theory. Enforced requisite: course 180. Introduction to cryptography, computer security, and basic concepts and techniques of information processing and cryptography, including encryption, private information retrieval and voting protocols, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, and unstructured systems. Two-party secure computation with static security. Letter grading.

192. Methods and Application of Collaborative Learning Theory in Life Sciences. (2) Seminar, two hours; clinic, four hours. Requisites: course 192A or Life Sciences 192A (may be taken concurrently), and at least one term of prior experience in same course, which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on collaborative learning, with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated four times for credit. Letter grading.


194. Research Group Seminars: Computer Science. (4) Seminar, four hours; outside study, eight hours. Preparations: courses 24, 33, or 34. Major projects. Seminar for graduate 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. Letter grading.

199. Directed Research in Computer Science. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. May be repeated for credit. Letter grading.

Graduate Courses

201. Computer Science Seminar. (2) Seminar, four hours; outside study, two hours. Designed for graduate computer science students. Seminars on current research topics in computer science. May be repeated for credit. P/NP 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 theoretical analysis and engineering of algorithms, data communication, and applications of information processing systems. Each member completes one tutorial and one or more original pieces of work in one specialized area. May be repeated for credit. Letter grading.

205. Health Analytics. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 31, 180. 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. Project-based course to learn about building data pipelines in health data collection and validation. Exploration of various machine learning and data analytic tools to learn underlying structure of datasets to solve healthcare problems. Different machine learning concepts and algorithms to develop models, and building of data-driven models. Big data analytics and tools for handling structured, unstructured, and semi-structured datasets. 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 for wireless and mobile internet. Topics include (1) networking fundamentals: design philosophy of TCP/IP end-to-end arguments, and protocol design principles, (2) networking protocols: 802.11 MAC standards, wireless network scheduling, mobile IP, ad hoc routing, and wireless TCP, (3) mobile computing systems software: middleware, file system, services, and applications, and (4) topical studies: energy-efficient design, security and information management, and quality of service. Letter grading.

marks. Advanced queueing theory: G/G/1, Lindley in
350 / Computer Science

M213A. Embedded Systems. (4) (Same as Electrical and Computer Engineering M202A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Design principles and implementation of embedded systems. Methodologies and technologies for design of embedded systems. Topics include hardware and software platforms for em-
bedded systems, techniques for modeling and simulation of such systems, design and implementation of low-power 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.

M213B. Energy-Aware Computing and Cyber-
Physical Systems. (4) (Same as Electrical and Computer Engineer-
ing M202B.) Lecture, four hours; outside study, eight hours. Requisites: course M154A or Electrical and Computer Engineering M16. Recommended: courses 111, and M151B or Electrical and Computer Engineering M116C. System-level manage-
ment and modeling for power and energy consumption in computing and communication at vari-
ous scales ranging across embedded, mobile, per-
onal, enterprise, and data-center scale. Computing, networking, sensing technologies, and algo-
rithms for improving energy sustainability in human-
computer-physical systems. Topics include modeling of energy consumption, energy sources, and energy storage; design principles for energy manage-
ment; power-performance scaling and energy proportionality; duty-cy-
celing; power-aware scheduling; low-power protocols; battery modeling and management; thermal manage-
ment; sensor data aggregation. Letter grading.

214. Big Data Systems. (4) Lecture, four hours: dis-
cussion, two hours; outside study, six hours. Enforced requisite: course 111. Modern computing has entered era of big data. Introduction to concepts and state-of-
art in modern big data systems. Study of distributed storage and database systems, which provide founda-
tion for other systems. Discussion of systems built for specific kinds of workloads, such as processing of streaming data, data analytics, machine learning, graph data, as well as machine learning. Letter grading.

216. Network Algorithms. (4) Lecture, four hours; outside study, eight hours. Recommended prepara-
tion: one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM217. S/U or letter grading.

CM217A. Seminar: Advanced Bioinformatics. (4) (Same as Bioinformatics M224 and Human Genetics M225.) Lecture, four hours: discussion, one hour. Requisites: course 111 or Program in Computing 10C with grade of C– or better, and one course from Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM217. S/U or letter grading.

CM218. Advanced Topics in Internet Research. (4) Lecture, four hours; outside study, eight hours. En-
forced requisite: course 217A. Designed for graduate students. Overview of Internet measurement and evaluation, and its underly-
ing technologies and protocols. Discussion of current Internet research topics, including recent results in routing pro-

CM219. Machine Learning in Bioinformatics. (4) (Same as Bioinformatics M224 and Human Genetics M225.) Lecture, four hours; outside study, eight hours. Enforced requisite: course 218 or Program in Computing 10C with grade of C– or better. Recommended: of course from Bioinformatics 100A, 110A, Civil Engi-
neering 110, Electrical Engineering 131A, Math-
ematics 170A, or Statistics 100A. Familiarity with prob-
ability, statistics, linear algebra, and algorithms ex-
pected. 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 pro-
cesses has shifted from data generation to statistical models and inference algorithms. Learn to analyze these datasets. Statistical machine learning provides important toolkit in this endeavor. Biological datasets offer new challenges to field of machine learning. Ex-
amination of statistical models and inference algo-
rithms of machine learning techniques and their application to key biological questions. Letter grading.

CM229S. Seminar: Current Topics in Bioinformatics. (4) (Same as Biological Chemistry M229S and Human Genetics M229S.) Seminar, four hours; outside study, eight hours. Recommended preparation for graduate students in course 112, and undergraduates in course 90F, without permission of instructor. Letters of recommendation solicited. 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 programming languages. As software sys-
tems become increasingly automated, modern auto-
mated software engineering analysis and develop-
ment tools play important role in various software en-
geering tasks, such as design, construction, evolution, and testing and debugging of software sys-
tems. Introduction to foundations, techniques, tools, and applications of automated software engineering technology. Development, extension, and evaluation of computer and other techniques. Introduction to current research topics in automated software engineering. S/U or letter grading.

231. Types and Programming Languages. (4) Le-
cure, four hours; outside study, eight hours. Requisite: course 131. Introduction to static type systems and their usage in programming language design and soft-
ware engineering. Operations on types, type system, lambda calculus, type soundness proofs, types for mutable references, types for exceptions. Parametric polymorphism, let-bound polymorphism, polymor-
phic type inference. Types for objects, subtyping, combining parametric polymorphism and subtyping. Types for modules, parameterized modules. Formal specification and implementation of variety of type sys-
tems, as well as readings from recent research liter-
ature on modern applications of type systems. Let-
ter grading.

232. Static Program Analysis. (4) Lecture, four hours; outside study, eight hours. Requisite: course 132. In-
troductory static analysis of object-oriented pro-
grams and its usage for optimization and bug finding. Class hierarchy analysis, rapid type analysis, equality-
based analysis, subset-based analysis, flow-insensi-
tive and flow-sensitive analysis, context-insensitive and context-sensitive analysis. Soundness proofs for static analyses. Efficient data structures for static analysis; space-time tradeoff; abstract interpretation, and binary decision diagrams. Flow-directed method in-
lining, type-safe method inlining, synchronization opti-
mization, deadlock detection, security vulnerability de-
tection. Specification and implementation of a variety of static analyses, as well as readings from re-
cent research literature on modern applications of static analysis. Letter grading.
233A. Parallel Programming. (4) Lecture, four hours; outside study, eight hours. Requisite: 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 multitype rendezvous; synchronous and asynchronous languages: CSP, Ada, Linda, Maize, UC, and others; introduction to parallel program verification. Letter grading.

233B. Verification of Concurrent Programs. (4) Lecture, four hours; outside study, eight hours. Requisite: course 233A. Formal techniques for verification of concurrent programs. Topics include safety, liveness, program verification, operational semantics, weakest precondition semantics, Hoare logic, temporal logic, UNITY, and axiomatic semantics for selected parallel languages. Letter grading.

234. Computer-Aided Verification. (4) Lecture, four hours; outside study, eight hours. Requisite: 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 semantics of reactive systems, invariant verification, temporal logic model checking, omega automata, symbolic model checking, dynamic space reduction techniques, compositional and hierarchical reasoning. 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 principles 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, formal methods for security principles to real-life problems, and new and emerging threats and security tools. Letter grading.

237A. Prototyping Programming Languages. (4) Lecture, seminar, four hours; outside study, two hours; outside study, six hours. Enforced requisite: course 131. How different programming language paradigms provide dramatically different ways of thinking about computation and programming; examples of many dimensions, such as modularity, extensibility, expressiveness, and safety. Concrete exploration of three major programming paradigms—functional, object-oriented, and logic programming—by prototyping implementations of languages in each. Analysis of prototypes to light on design and structural properties of each language and paradigm and to allow easy comparison against one another. Experience implementing low-level abstractions, both as stand-alone languages and as libraries in existing languages. Concurrently scheduled with course C137A. Letter grading.

237B. Programming Language Design. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course C237A. Study of various programming language designs, from computing history and research literature, that attempt to address problems of software explosion. Typical topics include bloated, buggy, and slow compilers, how programs may be modular, and how modules interact; and experience implementing new abstractions, both as stand-alone languages and as libraries in existing languages. Concurrently scheduled with course C137A. Letter grading.

238. Quantum Programming. (4) Lecture, four hours; outside study, eight 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 simulators; quantum compilers; quantum error correction; quantum advantages. Students implement several quantum algorithms in multiple languages both simulators and quantum computer. Letter grading.

239. Current Topics in Computer Science: Programming Languages and Systems. (4) Lecture, four hours; outside study, eight hours. Review of current research in computer science, focusing on programming languages and systems in which instructor has developed special proficiency as consequence of research interests. May be repeated with topic change. Letter grading.

240A. Databases and Knowledge Bases. (4) Lecture, four hours; outside study, eight hours. Requisite: course 134. 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, event-logic-based programming, and domain-specific languages are salient features of this technology. Other topics include object-relationship systems and data mining techniques. Letter grading.


244A. Distributed Database Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 143, 180 or equivalent. Design, implementation, and performance evaluation of distributed database systems. Data models, concurrency control, commit protocols, semantic query answering, multikey database systems, fault recovery techniques, network partitioning, examples, trade-offs, and design experiences. Letter grading.

245. Big Data Analytics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 143 or 180 or equivalent. With unprecedented rate at which data is being collected today in almost all fields of human endeavor, there is emerging economic and scientific need to extract useful information from it. Data analytics is 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 warehousing, data mining, machine learning, statistics, algorithms, data visualization, and data management. Surveyed main topics in big data analytics and latest advances, as well as wide spectrum of applications such as bioinformatics, E-commerce, environmental study, financial markets, and social networking. Network monitoring, social media analysis. Letter grading.

246. Web Information Management. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 112, 143, 118. Designed for graduate students. Scale of Web data requires novel algorithms and principles for their management and retrieval. Study of Web characteristics and new management techniques needed to build computer systems suitable for Web environment. Topics include Web measuring techniques, large-scale data mining algorithms, efficient page refresh techniques, Web-search ranking algorithms, and query processing techniques on index structures. Letter grading.

247. Advanced Data Mining. (4) Lecture, four hours; outside study, eight hours. Requisite: course 145 or M146 or equivalent. Introduction of concepts, algorithms, and techniques of data mining on different types of datasets, covering holistic algorithms, advanced techniques on text mining, recommender systems, and graph/network mining. Team-based project involving hands-on practice 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 current literature in area of data structures in which instructor has developed specialist proficiency as consequence of research interests. May be repeated with topic change. Letter grading.

251A. Advanced Computer Architecture. (4) Lecture, four hours; outside study, eight hours. Requisite: course M151B. Recommended: course 111. Design and implementation of high-performance systems, advanced memory hierarchy, pipelining and dynamic instruction issue, superscalar pipelining, branch prediction, speculative execution, software support for instruction-level parallelism, simulation-based performance analysis and evaluation, state-of-the-art design examples, introduction to parallel architectures. 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 multiprocessing, distributed-shared memory systems, messages-passing systems, multithreaded systems, clusters, computers, interconnection networks, network interfaces, and software design principles. Letter grading.


256A. Advanced Scalable Architectures. (4) Lecture, four hours; outside study, eight hours. Requisite: course M151B. State-of-art scalable multiprocessors. Interdependency among implementation technology, chip microarchitecture, and system architecture. High-performance building blocks, such as chip multiprocessors (CMPs). On-chip and off-chip communication. Mechanisms for exploiting parallelism at multiple levels. Current research areas. Examples of chips and systems. Letter grading.

M258A. Design of VLSI Circuits and Systems. (4) (Same as Electrical and Computer Engineering M258A.) Lecture, four hours; discussion, two hours; laboratory, four hours; outside study, two hours. Requisites: course M51A or Electrical and Computer Engineering M115A. Recommended: Electrical and Computer Engineering M115A. (Same as Electrical and Computer Engineering M258A.) Lecture, four hours; discussion, two hours; laboratory, four hours; outside study, two hours. Requisite: course M51A or Electrical and Computer Engineering M115. Lecture, four hours; discussion, two hours; laboratory, four hours; outside study, two hours. Requisite: course M51A or Electrical and Computer Engineering M115A.
and application in computer systems. In-depth studies of VLSI architectures and VLSI design tools. Letter grading.

M258F. Physical Design Automation of VLSI Systems. (4) Lecture, four hours; outside study, eight hours. Detailed study of various physical design automation problems, including placement, routing, timing, floorplanning, placement, global routing, channel and switchbox routing, planar routing and via minimization, compaction and performance-driven layout. Discussion of new and emerging tools, important optimization techniques, such as network flows, Steiner trees, simulated annealing, and generic algorithms. Letter grading.

M259. Current Topics in Computer Science: System Design/Architecture. (4) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer science system design 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.

260. Machine Learning Algorithms. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 180. Problems of identifying patterns in data. Machine learning allows computers to learn potentially complex patterns from data and make accurate predictions or decisions. Introduction to fundamentals of this discipline to provide both conceptual grounding and practical experience with several learning algorithms. Techniques and examples include supervised learning, unsupervised learning, classification, regression, clustering, and decision trees. Application to high-level applications in speech recognition, computer vision and pattern recognition, and natural language processing. Letter grading.

260B. Algorithmic Machine Learning. (4) Lecture, four hours; outside study, eight hours. In-depth examination of handful of ubiquitous algorithms in machine learning. Covers several classical tools in machine learning but more emphasis on recent advances and developing efficient and provable algorithms for learning problems. Topics include low-rank approximations, online learning, multiplicative weights framework, mathematical optimization, outlier-robust algorithms, streaming algorithms. S/U or letter grading.


262A. Learning and Reasoning with Bayesian Networks. (4) Lecture, four hours; outside study, eight hours. Required: course 112 or Electrical 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.


M262Z. 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, decision support 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; outside study, eight hours. Natural language processing (NLP) is the area of AI concerned with understanding and process human language. NLP techniques have been widely used in many applications, including machine translation, question answering, machine summarization, and information extraction. Study of fundamental elements and recent trends in NLP. Students gain ability to apply NLP techniques in text-oriented applications, understand machine learning and algorithms used in NLP, and develop new approaches to solve NLP problems. Letter grading.

263A. Language and Thought. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130 or 161. Introduction to natural language processing (NLP) and machine learning techniques. Exploration of process models for various tasks, including question answering, paraphrasing, machine translation, word-sense disambiguation, narrative, and computational models. Examination of both symbolic and statistical approaches to language processing and acquisition. Letter grading.

263C. Animats-Based Modeling. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130 or 161. Introduction to animat-like software agents embedded in simulated dynamic environments. Emphasis on modeling: goal-oriented behavior via imitation and adaptation via reinforcement learning, evolutionary programming. Animat-based tasks include foraging, mate finding, predation, navigation, predator avoidance, cooperative nest construction, communication, and parenting. Letter grading.

264A. Automated Reasoning: Theory and Applications. (4) Lecture, four hours; laboratory, four hours; outside study, eight hours. Required: course 161. Introduction to theory and practice of automated reasoning using propositional and first-order logic. Topics include syntax and semantics of formal logic; algorithms for logical reasoning, including satisfiability and entailment; syntactic and semantic restrictions on knowledge bases; effect of these restrictions on expressive, compactness, and computational tractability; applications of automated reasoning to diagnosis, planning, design, logical verification, and reliability analysis. Letter grading.


267A. Probabilistic Programming and Relational Learning. (4) Lecture, four hours; outside study, eight hours. Introduction to computational models of probability and statistical models of relational data. Study of relational representations such as probabilistic database states, 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. Expressive statistical models for applications that involve 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.


268S. Seminar: Computational Neuroscience. (2) Seminar, to be arranged. Review of current literature and research practice 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.

C274C. Computer Animation. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. Introduction to computer animation, including basic principles of character modeling, forward and inverse kinematics, forward and inverse dynamics, motion capture animation techniques, physics-based animation of particles and systems, and motor control. Concurrently 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. Introduction to computer animation, including basic principles of character modeling, forward and inverse kinematics, forward and inverse dynamics, motion capture animation techniques, physics-based animation of particles and systems, and motor control. Letter grading.

C274C. Computer Animation. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. Introduction to computer animation, including basic principles of character modeling, forward and inverse kinematics, forward and inverse dynamics, motion capture animation techniques, physics-based animation of particles and systems, and motor control. Concurrently scheduled with course C174C. Letter grading.
learning of locomotion, cognitive modeling, artificial animals and humans, human facial animation, and artificial evolution. Letter grading.

M276A. Pattern Recognition and Machine Learning. (4) (Same as Statistics M231A.) Lecture, three hours; discussion, one hour. Designed for graduate students in computer science, electrical engineering, mathematics, and applied mathematics. Introduction to pattern recognition and machine learning that are used in computer vision, image processing, speech recognition, data mining, statistics, and computer science; Bayesian decision theory, parametric and nonparametric learning, clustering, complexity (VC-dimension, MLD, AIC), PCA/ICA/TCA, MDS, SVM, boosting, SU or letter grading.

280A. Advanced Data Structures and Algorithms. (4 hours; outside study, eight hours. Requisite: course 180. Additional requisites for each offering announced in advance by department. Selections from design, analysis, optimization, and implementation of algorithms; computational complexity and general theory of algorithms; algorithms for particular application areas. Substitutes of some current sections; Principles of Design and Analysis (280A); Distributed Algorithms (280D); Graphs and Networks (280G). May be repeated for credit with consent of instructor and topic change. Letter grading.)

280AP. Approximation Algorithms. (4) Lecture, four hours; computer lab, two hours. Requisite: course 180. Background in discrete mathematics helpful. Theoretically sound techniques for dealing with NP-hard problems. Inability to solve these problems efficiently in the general case. Approximation techniques are based on approximation—finding solution that is near to best possible in efficient running time. Coverage of approximation techniques for number of different problems, with algorithms and design techniques that include primal-dual method, linear program rounding, greedy algorithms, and local search. Letter grading.

281A. Computability and Complexity. (4) Lecture; computer laboratory, two hours; discussion, one hour. Requisite: course 180. Emphasis on regular sets and languages; context-free grammars, Turing machines, decidability, halting problem, and undecidability. Introduction to the theory of computation, including computability and complexity. Letter grading.

282A. 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 one-way functions, hard-core bits, pseudorandom generators, pseudorandom functions and pseudorandom permutations, semantic security, public-key and private-key encryption, secret-sharing, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, key-agreement, contract signing, and two-party secure computation with static security. Letter grading.

282B. Cryptographic Protocols. (4) (Same as Mathematics M209B.) Lecture, four hours; outside study, eight hours. Requisite: course 282A. Consideration of cryptographic protocol design and analysis. Topics include noninteractive zero-knowledge proofs; zero-knowledge arguments; concurrent and non-black-box zero-knowledge; IP=PSPACE proof; stronger notions of security for public-key encryption, including chosen-ciphertext security; secure multiparty computation; dealing with key distribution; key exchange; key agreement; key negotiation; secure key exchange; mutual authentication; public-key cryptosystems; digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, key-agreement, contract signing, and two-party secure computation with static security. Letter grading.


284A-284Z. Topics in Automata and Languages. (4 each) Lecture, four hours; outside study, eight hours. Eight topics covering recent advances for each offering announced in advance by department. Selections from families of formal languages, grammars, machines, operators; pushdown automata, context-free languages and their generalizations, parsing, multidimensional grammars and developmental systems; machine-based complexity. Substitutes of some current and planned sections: Computation Free Languages (284A); Parallel Algorithms (284P), may be repeated for credit with consent of instructor and topic change. Letter grading.

CM286. Computational Systems Biology: Modeling and Control. (4) Lecture, four hours; laboratory, two hours; discussion, one hour. Requisites: Life Sciences 30A, 30B, Mathematics 32A or 32T, 33A, Molecular and Cell Biology 120, or equivalent). Closely directed, interactive, and real research experience. Course includes an introduction to theoretical model-based system biology. Letter grading.

CM287. Research Communication in Computational and Systems Biology. (4) (Same as Bioengineering CM287.) Lecture, four hours; outside study, eight hours. Requisites: course M122 or CM286 or 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 active quantitative systems biology research laboratory. Direction on how to focus on topics of current interest in scientific community, appropriate to student interest. 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, culminating with course CM187. Letter grading.

288S. Seminar: Theoretical Computer Science. (2) Seminar, two hours; outside study, six hours. Requisite: consent of instructor. Research under faculty mentorship. May be repeated for credit. S/U grading.

289A. 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.

289RA. Current Topics in Computer Theory: Randomized Algorithms. (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.

289SG. 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. Requisite: Electrical Engineering 141 or 142 or Mechanical and Aerospace Engineering 171A. Developement of dynamic systems modeling methodology for physiological, biomedical, pharmacological, chemical, controlled systems to control system multimcompartamental, noncompartamental, and input/output 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.

M296B. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Bioengineering M296B, Biophysics M270D, and Medicine M270D.) Lecture, four hours; outside study, eight hours. Requisite: course CM296 or M296A or Biostatistics 220. Estimation methodology and model parameter estimation algorithms for fitting dynamic models of medical systems to 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.

M296C. Advanced Topics and Research in Biomedical 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 modeling, modeling methods, and model/computing in biological and medical sciences. Review and critique of literature and development of research ideas and formulation. Approaches to solutions. Individual MS- and PhD-level project training. Letter grading.

M296D. Introduction to Computational Cardiology. (4) (Same as Bioengineering M296D.) Lecture, four hours; outside study, eight hours. Requisite: course CM186. Introduction to mathematical modeling and computer simulation of cardiac electrophysiological process. Ionic models of action potential (AP). Theory of AP propagation in one-dimensional and two-dimensional cardiac tissue. Simulation on sequential and parallel supercomputers, choice of numerical algorithms, to optimize accuracy and to provide computational stability. Letter grading.
CONSERVATION OF CULTURAL HERITAGE

Interdepartmental Program
College of Letters and Science
A210 Fowler Building
Box 951510
Los Angeles, CA 90095-1510

Conservation of Cultural Heritage
310-825-9407
E-mail contact
Glenn Wharton, PhD, Chair

Faculty Committee
Kathryn (Kara) Cooney, PhD (Near Eastern Languages and Cultures)
Johanna R. Drucker, PhD (Design|Media Arts, Information Studies)
Christian Fischer, PhD (Cotsen Institute of Archaeology)
Mark S. Goersky, PhD (Materials Science and Engineering)
Joanna Kakouli, DPhil (Materials Science and Engineering)
H. Pirouz Kavehpour, PhD (Bioengineering, Mechanical and Aerospace Engineering)
Peter B. Lutenfeld, PhD (Design|Media Arts)
Stella E. Nair, PhD (Art History)
Ellen J. Pearlistein, PhD (Information Studies)
Deepak Rajagopal, PhD (Environment and Sustainability)
Lothar von Falkenhausen, PhD (Art History)
Glenn Wharton, PhD (Art History)

Overview
The UCLA/Getty Conservation interdepartmental program provides an excellent platform for education and research in the conservation of material culture. It supports discovery and innovation through research that transcends the boundaries of traditional disciplines. It uniquely trains cultural property professionals in the best practices and methods of cultural heritage conservation through various pedagogical approaches including, but not limited to, core teaching and learning, independent research, and laboratory experience in museums and in the field. Finally, it positively impacts the community by engaging with a more informed public that would seek to protect cultural heritage from imminent threats.

Graduate Majors
Conservation of Cultural Heritage MA

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, 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 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. Enforced requisites: Enrollment 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

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 reburlars, shelters, rescue excavations, and documentation of changes developing in situ 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 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 conservation professionals, curators, collectors, managers, mount makers, designers, and registrars to permit collections to be both accessed and preserved. Concurrently scheduled with course C242. Letter grading.

Graduate Courses


211. Science Fundamentals in Conservation of Materials. (4) Formerly numbered Conservation of Archaeological and Ethnographic Materials 211.) Lecture, four hours. Introduction to important scientific parameters in conservation of materials that are of great importance for both fundamental science and practical applications. Students gain better understanding of interrelations and mechanisms of deterioration, and conservation treatments. General chemistry, physics, and physical chemistry (atomic structure bonding, etc.), fluid transfer in porous materials, surface chemistry and physics, measurement by wetting, adsorption, diffusion, dissolution and crystalization, mechanical properties (properties/characterization), phase transformations (glass, metals, polymers). Letter grading.

215. Cultural Materials Science I: Analytical Imaging and Documentation in Conservation of Materials. (4) Formerly numbered Conservation of Archaeological and Ethnographic Materials 215.) Same as Materials Science 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 theoretical knowledge on imaging and photonics technology and practical skills on conservation photo-documentation, analytical (forensic) photography, and advanced new imaging technologies. Letter grading.


220. 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 reburlars, shelters, rescue excavations, and documentation of changes developing in situ 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 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.

221. Science Fundamentals in Conservation of Materials. (4) Formerly numbered Conservation of Archaeological and Ethnographic Materials 221.) Lecture, four hours. Introduction to important scientific parameters in conservation of materials that are of great importance for both fundamental science and practical applications. Students gain better understanding of interrelations and mechanisms of deterioration, and conservation treatments. General chemistry, physics, and physical chemistry (atomic structure bonding, etc.), fluid transfer in porous materials, surface chemistry and physics, measurement by wetting, adsorption, diffusion, dissolution and crystalization, mechanical properties (properties/characterization), phase transformations (glass, metals, polymers). Letter grading.

224. Issues in Preservation and Management of Archaeological and Cultural Sites. (4) Formerly numbered Conservation of Archaeological and Ethnographic Materials C224.) Seminar, three hours. Designed to offer practical model of preservation and management planning for heritage sites that reflect different models for tribal museums and cultural centers, and importance of material selection and properties in baskets they are treating. Letter grading.


238. Conservation Laboratory: Organic Materials II. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 238.) Laboratory, four hours. Enforced requisite: course 262. Designed for graduate conservation students. Typical treatments used historically and currently for deterioration problems found in organic materials from archaeological and ethnographic contexts. Materials include vegetable 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 study, eight hours. Requisites: courses 234, 236, 238. Recommended: courses M210, M216. Treatment of conservation problems of metallic artifacts made of iron, steel, cast iron, gold, zinc, and aluminum that have some organic or inorganic objects. Practical work on metallic artifacts. Letter grading.

520. Environmental Protection of Collections for Museums, Libraries, and Archives. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 520.) Lecture, two hours; laboratory, two hours. Requisites: Information Studies 432. Required of graduate conservation students. Review of environmental biological agents of deterioration, including light, temperature, relative humidity, pollution, insects, and fungi. Emphasis on monitoring to identify agents and understanding of material sensitivities, along with preventive 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 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.

250. Conservation Laboratory: Rock Art, Wall Paintings, and Mosaics. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 250.) Laboratory, four hours. Requisites: courses M210 (or M216 or Materials Science C112), 210L, M264. Recommended: course M215. Research-based laboratory on conservation of rock art, wall paintings (archaeological and modern compositions on cement), mosaics, and decorated architectural surfaces. Experimental techniques and analysis of materials (using materials science). May be repeated for credit. SU grading.


262. Structure, Properties, and Deterioration of Materials: Organic 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 composition (chemistry), structure (crystals, molecular arrangement, and microstructure), and properties of organic materials. Hands-on examination of variety of samples and artifacts. Letter grading.

263. Structure, Properties, and Deterioration of Materials: Organic II. (2) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 263.) Lecture, three hours. General introduction to different types of ancient and ethnographic metals. Relationships between composition (chemistry), structure (crystals, molecular arrangement, and microstructure), and properties of metals explained using basic concepts from physics and chemistry. Chemical, optical, and structural properties. Deterioration phenomena, defects, and products of alteration of metallic artifacts. Hands-on examination of variety of samples and artifacts. Letter grading.

264. Structure, Properties, and Deterioration of Materials: Rock Art, Wall Paintings, and 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 science and techniques, wall paintings (including painted surfaces on cement and composite decorative architectural surfaces), and mosaics. Archaeological and ethnographic context, techniques, and materials. Pigments, colors, 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 plant-based organic materials used to produce ethnographic and archaeological cultural heritage: wood, bark, paper, bast fibers, grasses. Relationship between materials properties, 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.

298. Special Topics in Conservation. (2 or 4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 298.) Lecture, three hours; laboratory, one hour. Special topics on theoretical and practical subjects in conservation such as focused materials studies, new conservation approaches, advanced scientific applications, or current special work by core program faculty or visiting scholars. If appropriate, field trips may be arranged. May be repeated for credit with topic or instructor change. Letter grading.

498. 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. Internship revolves around conservation-related professional and research-based training in field through participation in field projects (e.g., archaeological excavation, site management, indigenous 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 to be theoretical in scope or practically oriented. Letter grading.

596. Directed Individual Studies. (2 to 6) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 596.) Tutorial, seven hours. Limited to graduate conservation students. Individual guided studies that may include conservation research and/or surveys or treatment projects carried out at Villa laboratory, World Arts and Cultures/Dance and science departments, regional and national laboratories, or at other similar venues. All intern placements to be theoretical in scope or practically oriented. Letter 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. SU 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. SU grading.

DANCE

See World Arts and Cultures/Dance
DENTISTRY
School of Dentistry
A0-111 School of Dentistry
Box 951762
Los Angeles, CA 90095-1762

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 defined 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
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.

Upper-Division Courses
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 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.

Graduate Courses

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
School of the Arts and Architecture
2275 Broad Art Center
Box 951456
Los Angeles, CA 90095-1456

Design | Media Arts
310-825-9007
Department e-mail
Rebeca Méndez, MFA, Chair

Faculty Roster
Professors
Steven F. Anderson, MFA, PhD
Johanna R. Drucker, PhD (Martin and Bernard Breslauer Professor of Bibliography)
Erkki I. Huhtamo, PhD
Willem Henri Lucas, BA
Peter B. Lunenfeld, PhD
Rebeca Méndez, MFA
Christian A. Moeller, Dipl-ING
Casey E.B. Reas, MS
Ramesh Srinivasan, PhD
Jennifer J. Steinkamp, MFA
Eddo I. Stern, MFA
Victoria Vesna, MFA, PhD

Professors Emeriti
Rebecca Allen, MS
James W. Bassler, MA
Robert A. Israel, MFA
Mitsuru Kataoka, MA
J. Bernard Kester, MA
Vasa V. Miñich

Associate Professor
Lauren L. McCarthy, MFA

Assistant Professors
Jenna B. Caravello, MFA
Chandler McWilliams, MFA, MA

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 sensitivity 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: form, 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
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, 156, 157, 161, 163; three courses selected from 160, 171, 172, 173; and one capstone course selected from 159A, 159B, or 159C.

Graduate Major
Design/Media Arts MFA
The two-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.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 West 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. Design and development of 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. 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 video art using software programs selected for student use. May be repeated for credit without limitation. 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 fundamentals of preproduction and postproduction using latest digital software, Adobe Premiere and After Effects, to create their work. Baking of DVD of finished production. Visits from professional video producer to help 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 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 portfolios 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 scenarios, laboratory visits, field trips, and outside study. Exploration of creative aspects of scientific research and innovation to gain broad understanding of impact of science on contemporary art and popular culture. Emphasis of scientific and technological influences on design, creativity, art, and culture. Students fundamentals in mixing and applying pigments with focus on developing skills in mixing and applying pigments in industry and art. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.
7. Media Histories. (5) Lecture, three hours; outside study, 12 hours. Synthesis of 20th-century optical media and aesthetic movements covering past two centuries: photography and industrialization/Romanticism (1850 to 1890); Kodak and pop-realism (1890 to 1950); television and postmodernism (1950 to 2000); and digital media and unimodernism (2000 to 2050). How such movements can inform creative work and how understanding these movements becomes essential in emerging era of digital humanities. P/NP or letter grading.
8. Art, Science, and Technology. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration of the 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 environment. P/NP or letter grading.
10. Design Futures. (5) Lecture, three hours; outside study, 12 hours. Preparation: completion of preparation for major courses. Open to nonmajors with consent of instructor. Critical examination of design prac-
Design | Media Arts / 359

152. Tangible Media. (5). Studio, six hours; outside study, nine hours. Requisites: courses 22, 28, and 101 or 104. Through workshops, readings, lectures, critiques, and discussions, reevaluation of role of desktop publishing and related activities (e.g., letterheads, trash, keys, keyboards, screens, and gamepads) plays in forming our understanding of what is technically possible, sensible, logical, foolish, magical, and intimately human. Letter grading.

153. Video. (5). Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisite: course 101 or 104. Use of video technology (video systems, cameras, displays, editing, and storage) to integrate image, sound, time, and motion. Emphasis on expression, continuity, and sequential patterns for video communication. P/NP or letter grading.

154. Word + Image. (5). Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisites: courses 21, 22, 25, and 101 or 104. Focus on relationship of type to content, image, and materials. Acquisition of knowledge of and experience in typography in context of complex communication problems in print and digital media. Research, concept and content development, and articulacy of methodology for visualization. P/NP or letter grading.

156. Three-Dimensional Modeling and Motion. (5). Studio, six hours; outside study, nine hours. Requisite: course 101 or 104. Introduction to theories of three-di-mensional form, spatial design, and lighting, using three-dimensional visualization and video tools. Tools originally designed for motion to be used to construct form. Use of aspects of time, such as speed and duration, to define form. Exploration of virtual versus real form. Letter grading.

157. Game Design. (5). Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisites: 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 playable game projects that explore various aspects of game design: rule design, game balance, multiplayer strategy, complexity, randomness, polemics, narrative, physical interaction, and aesthetic and pragmatic aspects of physical game design. P/NP or letter grading.

159A-159B-159C. Capstone Senior Project. (5–5–5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Limited to seniors. Focus on creating final project that can be showcased at Senior Show. Students can take two different courses in different terms or the same course twice in different terms. Total units for courses 159A, 159B, and 159C may not exceed 10 units, with maximum of 5 units per term. Letter grading. 159A. Interactivity and Games. Requisites: courses 101, 104, 157, 161, and 160, 171, 172, or 173. Interactive media, including game design, interactive installations, dynamic and interactive websites, coding, and lighting. Letter grading.


160. Special Topics in Design | Media Arts. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisite: course 101 or 104. Selected topics in design and media arts explored through variety of approaches that include projects, research, presentations, and critiques. Topics announced in advance. May be repeated for credit with topic change. Letter grading.

161. Network Media. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisites: courses 28, 154. Exploration of creative, technical, and critical tools to realize Internet-based projects. Focus on students gaining roles of creating content and interacting in collaborative environments that explore emerging aspects of design and technology. Topics announced in advance. May be repeated for credit with topic change. Letter grading.
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.

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 Lower-Division Course (4 to 6 units):

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 197, 198, or 199; and three elective courses selected from Ancient Near East 101C (or Architecture History M110C), 125A, 125B (or Architecture and Urban Design M125B), M125C (or Architecture and Urban Design M125C), 162, C165, CM169 (or Anthropology CM110C), Anthropology M116R (or Chinese M183), Architecture and Urban Design 132, Armenian C153, Art History C145A, C145B, Classics 164, 168B, 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.

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. (6) Lecture, two and one half hours; studio, two hours. Investigation of spatial justice and injustice in multi-ethnic city of Los Angeles through lens of three thematic technologies that built and transformed Los Angeles into global metropolis: cars and highways, networking technologies 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 productive 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. 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. Introduction to Digital Humanities. (5) Lecture, four hours; discussion, one hour. Foundation course for students in Digital Humanities minor, providing theoretical and conceptual framework for understanding genesis of digital world. Use of contemporary cultural-historical methodology to focus on rise of 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 how individuals, groups, and cultures experienced their worlds. Letter grading.
110. User Experience and Design. (4) Seminar, three hours. Requires: course 101. Introduction to fields of user experience (UX) research and design. Covers UX
design methods and process, including ethnographic field research, persona-scenario development, information architecture, prototyping, and usability testing. Students learn by hands-on practice in human-centered process: how to understand users, how to design interface and interaction for users, and how to evaluate and communicate user experience design with users. Letter grading.

120. Social Media Data Analytics. (4) Seminar, three hours. Requisite: course 101 or consent of instructor. Social media data analytics, with focus on questions of power, privilege, identity, whose voices count and in what spaces, as well as how data science and digital humanities challenge predominant narratives. Study of how social media has been used both to undermine and to support social justice and political change movements, ways in which social media data is currently used by corporate entities, and ethical data usage. Students learn digital research methods including quantitative and qualitative data analytics, statistics, as well as data visualization to examine social media data. 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. Students learn 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 creating location-based narratives and visualizations. Through project-based learning, students develop presentation of project. Librarians and members of Digital Research Consortium introduce students to available digital datasets, and other resources at UCLA. 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.

195. Community or Corporate Internships in Digital Humanities. (4) Tutorial, two hours: fieldwork, eight hours. Limited to juniors/seniors. Development and completion of significant research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. P/NP grading.


199. Directed Research in Digital Humanities. (2 to 4) Tutorial, one hour. Requisite: course 101. Directed research and investigation under guidance of faculty mentor. May be repeated for credit with topic change. Letter grading.

205. Special Topics in Digital Humanities. (4) Seminar, three hours. Enforced requisite: course 201. Introduction to advanced research methods or thematic issue 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 such technologies and issues that they raise. May be repeated for credit with topic change. Letter grading.

299. Special Projects in Digital Humanities. (2 to 4) Tutorial, one hour. Requisite: course 201. Limited to and required of graduate students in Digital Humanities Graduate Certificate Program. Supervised research and investigation under guidance of faculty mentor. Culminating project required. May be repeated for maximum of 12 units. Letter grading.

596. Directed Individual Study or Research. (1) Seminar, three hours. To be arranged with faculty member who directs study or research. S/U or letter grading.

---

**Disability Studies**

Interdisciplinary Minor
College of Letters and Science
A316 Murphy Hall
Box 951400
Los Angeles, CA 90095-1430

Disability Studies
310-206-1667

E-mail contact

Victoria E. Marks, BA, Chair

Faculty Committee

Salih Can Akpıksıdı, PhD (Anthropology)
Juliann T. Anesi, PhD (Gender Studies)
Bruce L. Baker, PhD (Psychology)
Helen Deutsch, PhD (English)
Rachel C. Lee, PhD (Asian Languages and Cultures, English, Gender Studies, Society and Genetics)
Victoria E. Marks, BA (World Arts and Cultures/Dance)

---

**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 pervasiveness of disability as a lens to observe models of access, inclusion, participation, communication, and equality.

Led by some of the most distinguished UCLA faculty, disability studies examines the mean-
Undergraduate Minor

Disability Studies Minor

Through a core course, carefully selected electives, a required two-term internship or research apprenticeship, and a senior capstone project, students in the minor obtain both breadth and depth in their understanding of the concept and practical implications of disability.

Admission

To enter the Disability Studies 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. To help plan the internship and course schedule, students are expected to work closely with the minor’s academic adviser. For contact information, application, and general information about the minor, see the minor website.

The Minor


Required Upper-Division Internship/Apprenticeship Courses (8 units): Two consecutive terms of internship or research apprenticeship (Disability Studies 195CE or 196) in a community-based agency that provides services or support for persons with disabilities or in an institution or agency at the local, state, or federal level responsible for policy on disability issues or collaboration on a research project focused on an area of disability studies scholarship. Internship credit for students participating in the UC Center Sacramento (UCCS) program or the Center for American Politics and Public Policy (CAPPP) program may be substituted by petition and is subject to approval by the faculty committee.

Required Upper-Division Capstone Courses (5 to 6 units): Disability Studies 191 or 198B and 198A or 199A and 199B. Prior to enrolling in any capstone option, students must complete Disability Studies 101 or 101W, two upper-division electives, and at least one term of an internship or apprenticeship.

The capstone experience for the minor requires an integrative final paper or project that incorporates the required curriculum and elective courses. Students complete the capstone experience by enrolling in a senior research seminar (Disability Studies 191) or by enrolling in two-term independent study courses (198A and 198B or 199A and 199B) under the guidance of a faculty sponsor. The faculty sponsor approves the proposed readings as well as the length and scope of the final paper or project based on guidelines developed by the faculty committee for 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. Only one course may be applied to both this minor and another major or 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 minor. Successful completion of the minor is indicated on the transcript and diploma.

Disability Studies

Lower-Division Courses

10. Intersections of Art History and Disability Studies: Disability in Modern Art. (5) Lecture, four hours. Broad overview of presence of disability and its manifestations through modern art in the 19th and 20th centuries. Introduction of historical development and fundamental intellectual and ethical issues associated with representation 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 framework around how disability might fit into discourse of modern art as alternative way of knowing and how disability informs modern art by way of radical aesthetics of representation that challenges sociocultural norms. Consideration of how disability aesthetics informs photography, performance art, outsider art, and curatorial practices. 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.

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 credit 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. Enrollment 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. Perspectives on Disability Studies. (5) Lecture, one hour; discussion, two hours. Not 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 productive and central tensions in disability studies—between disability as lived subjective experience that is both individual and communal, and disability as objective, medical, legal, 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. Satisfies Writing II requirement. Letter grading.

101D. Disability and Violence. (4) Seminar, three hours. Relationship between disability and violence from three angles: (1) review of disproportionate incidence of violence committed against people with disabilities, whether specifically as form of hate crime or based on dependency and/or vulnerability that accompanies some types of disability, (2) study of role of disability and particularly mental illness in representations of criminality and violence, and (3) disablement or emergence of disability (injuries, illnesses, impairments created by social inequity) as consequence of intersecting forms of racial, gender, sexual, and class subordination, 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 social movement 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 requisite: English Composition 3 or 2H. Survey of modes of disability in literature with specific emphasis on American literature and cultural 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 as Spectacle: Performing Nonnormative Bodies. (4) Lecture, two hours; studio, two hours. Examination through performance of disability activists and artists interrogating how aspects of body get deemed nonnormative. Investigation of what it means to push against pressure to fit in, as well as how to contest visibility of some disabilities, and what happens when normal bodies get defined visually. Use of this lens on disability to research and explore role that bodies play in political battles over who gets socially valued and who does not. 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 disabled musicians; music technologies and instrument
**Disability Studies / 363**

**M120. Disability Policy and Services in Contemporary America.** (Same as Geology M165 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. But are they succeeding in leading such lives? Who are people with disabilities in contemporary America? How has U.S. responded over time to various needs and aspirations of people with disabilities? What do society and culture tell us? What do they communicate? P/NP or letter grading.

**M130. Alternative Approaches to Language Acquisition.** (Same as Psychology M139.) Seminar, two hours. Examination of everyday experience of language delay, disorder, difference, and difficulty from disability studies perspective. Presenters discuss key concepts and tenets of culture, disability, and language use. Discussions and assignments critically evaluate findings on language acquisition by asking questions about inclusion, individual- and socially constructed experience, and power. P/NP or letter grading.

**M138X. Applied Autism Intervention: Multidisciplinary Perspective.** (Formerly numbered 138SL.) Seminar, 90 minutes; fieldwork, six hours. Service-learning course for undergraduate students in Early Childhood Partial Hospitalization Program (ECHPHP). Introduction to history, theory, and practice of autism interventions and public policy factors that determine how society and medical profession understand autism as diagnostic category. Study of processes involved in identifying autism as represented in fields of psychiatry, psychology, and disability studies. Review of social versus medical model of disability and analysis of dominant as well as counter discourse on autism. Overview of broader educational issues for children living with disabilities as well as parent perceptions. P/NP or letter grading.

**M139. Perspectives on Autism and Neurodiversity.** (Same as Psychology M139.) Seminar, three and one-half hours. Genealogy of autism as diagnostic category as related to key cultural events from its historical roots as new, rare, and obscure condition in early 1940s to its current contested status as minority identity and/or global epidemic. Examination of material sourced from various disciplines in autism, including psychology, neuroscience, arts and humanities, popular media, anthropology, activism, and critical autism studies. Students encounter and analyze multiple movements and put them in conversation with one another. Attention paid to way people on spectrum define, explain, and re-present their own experiences of autism and discussion of what ramifications of these multiple framings are in context of autism intervention strategy and disability policy today. Letter grading.

**145. Mental Disability Law.** (Same as Psychology M139.) Seminar, three hours. Examination of definitions and some characteristics of those conditions that legal systems recognize as mental disabilities. Review of evolution of these definitions through U.S. and Western histories, with focus on role concepts of mental illness has played in various racial, gendered, and economic regimes. Exploration of primary approaches U.S. legal system takes to address needs, vulnerabilities, and rights of people with disabilities and of people with mental disabilities. Discussion of some key challenges and controversies affecting policy and practice in this area and varying strategies for engaging those challenges. P/NP or letter grade.

**M148. Sociology of Mental Illness.** (Same as Sociology M148.) Lecture, three hours; discussion, one hour. Analysis of major sociological and social psychological models of madness. Study of social processes that involve labeling and treatment of mental illness. P/NP or letter grading.

**M149. Disability Rights Law.** (Same as Sociology M120.) Lecture, four hours. Examination of disability-related issues impacting people of all ages across wide spectrum 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.


**M157. Rechoeographing Disability.** (Same as Dance M157.) Seminar, four hours. Through study of range of performance by, featuring, or about 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. Introduction to concept of choreography as political/cultural idea broadly defined as scored movement and organization and behavior of bodies, and all choreography involved in expression of ideas, creative tool, or product. Viewing and discussion of work, and embodied ideas through movement and dance-making. P/NP or letter grading.

**M161. Sports, Normativity, and Body.** (Same as Gender Studies M161.) Seminar, three hours. Analysis of key sport figures and events, as well as original research, to understand how race, gender, and disability are responsive to people in need? How do demographic, economic, and politics continue to influence evolving public policy responses? P/NP or letter grading.

**M163A-163B. Autism Media Laboratory.** (5-5) Formerly numbered 163.) Seminar, two hours; discussion, one hour. Course 163A is requisite to course 163B. Course 163A introduces students to various strategies for engaging those challenges. Course 163B is a project-based course for students who wish to explore creative media that address the experiences of individuals on the autism spectrum. Course 163B provides students with hands-on experience in creating multimedia work that addresses social and political issues related to autism. Students will develop a final project that integrates all aspects of the course, including collaboration with community partners, and will present their work at a final exhibition. Credit not given for both courses. P/NP or letter grading.

**M164A. Documentary Production for Social Change: Mobility in Los Angeles.** (5) Seminar, three hours; fieldwork, two hours. Exploration of documentary filmmaking as catalyst to educate greater community on importance of inclusion of people with disabilities and expanding local and community teachers, autistic self-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.

**M164B. Documentary Dis/Ability on Film.** (4) Lecture, four hours. Nonfiction film and television is in a con-temporary form of investigation or research or is attached to research projects, built into websites, used in campaigns for social and political activism, and exhibited at film festivals and on television. Students learn how to create documentary projects that appear more frequently on cable, public television, and Internet. Examination of how powerful documentaries still rely on well-told stories by passionate filmmakers. P/NP or letter grading.

---

**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.** (Same as Theater M114.) Seminar, four hours. Analysis and critique of depictions of disability in theater, with emphasis on 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.** (Same as American Sign Language M115.) Lecture, three hours. Exploration of historical, medical, sociological, 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 normalcy, disability, and deafness. Seminar, four hours. Exploration of race and disability, with various disability populations. Use of scholarly texts from disability studies, sociology, gender studies, or critical race studies to investigate and critique mechanisms and systems that shape race, ableism, and dominant/nondominant power relations. P/NP or 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 an internship mentor and develop proposal for required capstone research paper. 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 or distribution requirements. Individual contract with supervising faculty member required. Letter grading.


196A-196B. Honors Research in Disability Studies. (2–4) Tutorial, one hour. Enforced requisite: course 101 or 101W. Course 196A is enforced prerequisite to 196B. 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 (196A) and letter (196B) grading.

196C. 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.

196A-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, or faculty mentor. 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.
Assistant Professors
Mackenzie Day, PhD
Selugi Moon, PhD

Adjunct Professors
Robert C. Newton, PhD
Edward J. Rhodes, PhD

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 governmental 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

Preparation for the Major
Required: Earth, Planetary, and Space Sciences 1, 51, 61; Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering M20; Mathematics 31A, 31B, 32A, 33A; Physics 1A, 1B, 1C, 4AL, 4BL. Recommended: Mathematics 32B.

Policies
Each course must be passed with a minimum grade of C–.

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, two general chemistry courses with laboratory for majors, and one year of calculus. A second year of calculus is recommended. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Three courses from Earth, Planetary, and Space Sciences 103A, 103B, 111, 112, 136A, 139; Civil and Environmental Engineering 108, 120, 121, 150; two capstone field research courses (Earth, Planetary, and Space Sciences 121, 121F).

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
Preparation for the Major
*Required:* Earth, Planetary, and Space Sciences 1, 51, 61, 71; Chemistry and Biochemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L; Life Sciences 7B; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 4AL, and 4BL, or 5A and 5B.

Policies
Each course must be passed with a minimum grade of C-.

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, one year of calculus, and two general chemistry courses with laboratory for majors.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
*Required:* Earth, Planetary, and Space Sciences 103A, 103B, 111, 112, M118 (or 136A); two courses from 103C, 116, and 133; two capstone field research courses (121, 121F); two additional 100-level department courses.

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. 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 to 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.

Geochemistry Minor
Geochemistry emphasizes use of minerals, magmas, elements, and isotopes to date events, determine rates, and track matter through its cycles in the planets and biosphere. These skills are valuable in environmental and natural-resource work and anthropology, as well as in studying the histories of the planets.

Admission
To enter the Geochemistry minor, students must have an overall grade-point average of 2.0 or better.

The Minor
*Required Lower-Division Courses (8 units):* Earth, Planetary, and Space Sciences 1, one course from 5, 13, 15, or 61.

*Required Upper-Division Courses (20 units minimum):* Five courses from Earth, Planetary, and Space Sciences 101, 112, C113, 139, 150, 153.

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.

Geophysics Minor
The Geophysics major has the following learning outcomes:

- 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

Preparation for the Major
*Required:* Earth, Planetary, and Space Sciences 51, 61, and one course from 1 (preferred) through 15; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL.

Policies
Each course must be passed with a minimum grade of C-.

Transfer Students
Transfer applicants to the Geophysics major with 100 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, one year of calculus, and two general chemistry courses with laboratory for majors.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
*Required Core:* Earth, Planetary, and Space Sciences 136A, M140, 171, one capstone field research course (136C), one course from 152, 153, 154, 155; Physics 105A, 105B, 110A, 110B, 131. Substitutions of equivalent courses from engineering or other physical sciences departments must be approved by the undergraduate adviser.

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, 150, 152, (2) marine geophysics—courses 119, 122, 136B, 150, 153, (3) planetary geophysics—courses 150, 153, 154, 155, (4) solid earth geophysics—courses 119, 122, 136B, 150, 152, or (5) space physics—Atmospheric and Oceanic Sciences C170, Earth, Planetary, and Space Sciences 136B, 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. 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 (8 units):* Earth, Planetary, and Space Sciences 1, one course from 5, 13, 15, or 61.

*Required Upper-Division Courses (20 units minimum):* Five courses from Earth, Planetary, and Space Sciences 101, 112, C113, 139, 150, 153.

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.
courses from 103A, 103B, 103C, C106 or C107 (whichever course was not applied above), 152, 153.

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.

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 (12 units):
- Earth, Planetary, and Space Sciences 1, 8, 9.
- Earth, Planetary, and Space Sciences 136A, 171, and three courses from M140, 152, 153, 154, 155.

Required Upper-Division Courses (20 units):
- Earth, Planetary, and Space Sciences 1, 61, 62, 119, and three courses from C107, 116, 125, 133, 139, 150, 171.

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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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. (5) Lecture, three hours; laboratory, two hours; field days. Not open to students with credit for or currently enrolled in course 100. Elements of Earth science; 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.


5. 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.

7. Geology Minor

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 the minor is indicated on the transcript and diploma. 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.

8. 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.


13. 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, are placing increasingly large parts 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 from catastrophic mass movements (e.g., landslides), hurricanes, floods, and fires. Exploration of physical processes behind natural disasters and discussion of how these natural events affect quality of human life. P/NP or letter grading.

15. Blue Planet: Introduction to Oceanography. (5) Lecture, three hours; laboratory, two hours. Not open for credit to students with credit for or currently enrolled in course 25. General introduction to geophysical, physical, chemical, and biological processes and history of Earth’s global ocean system. P/NP or letter grading.


Lecture, three hours. 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. Natural History of Southern California. (6) 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 geologic history of the central and southern portions of Southern California. Emphasis on field-based learning. P/NP or letter grading.


61. Geologic Maps. (4) Lecture, two hours; laboratory, three hours; five field days. Enforced requisite: course 1. Planning, creation, and interpretation of geologic maps. Practical and philosophical problems that arise. Topographic and geologic mapping in field. Interpretation of published maps in laboratory. P/NP or letter grading.

101. Earth's Energy: Diminishing Fossil Resources and Environmental Sustainability. (3) Lecture, two hours; laboratory, six hours; field trips. Enforced requisite: course 103A. Recommended: course 61. Study of sedimentary processes and structure of sedimentary rocks and their deposition. Processes of sedimentary deposition. Processes of sedimentation. Focus on sedimentary deposits from each major depositional facies. P/NP or letter grading.

103C. Metamorphic Petrology. (5) Lecture, two hours; laboratory, six hours; field trips. Enforced requisite: course 103A. Principles of metamorphic rocks based on field occurrence, mineralogical compositional position, texture, and application of physical and chemical principles. P/NP or letter grading.


C107. Geochemistry. (4) Lecture, three hours; discussion, one hour. Designed for junior/senior and graduate physical sciences students. Origin and abundance of elements and their isotopes; distribution and chemistry of elements in Earth and its environment. Concurrently scheduled with course C207. 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 areas; 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. S/U or letter grading.

112. Structural Geology. (5) Lecture, three hours; laboratory, six hours. Requisites: courses 1, 61. Recommended: course 111. Linear and structural lineaments at different scales in sedimentary, metamorphic, and igneous rocks. Faults and folds, their description, classification, and kinematic and dynamic analysis. Deformation, strain, and development of rock rheological properties of rocks. P/NP or letter grading.

C113. Biological and Environmental Geochemistry. (4) Lecture, three hours. Requisites: Chemistry 1A and 1B (or 20A and 20B), Mathematics 3A, 3B, and 3C (or A and B), and Chemistry 4. Study of lower-division Earth, planetary, and space sciences course. Conducted for junior/senior and physical sciences students. Study of chemistry of Earth's surface environment and its role in 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 biogeochemical feedbacks to biogeochemical evolution and diversity. Local and global-scale movements of biologically important elements like carbon, nitrogen, and phosphorous. Concurrently scheduled with course C213. P/NP or letter grading.

C114. Aquatic Geomicrobiology. (4) Same as Atmospheric and Oceanic Sciences C114). Lecture, three hours; discussion, one hour. Recommended requisite: course C107 or Atmospheric and Oceanic Sciences M105. Fundamental geomicrobiological metabolic processes of aquatic environments. Principles of aquatic systems, how they impact their environment, and how they interact in complex ecosystems such as methane seeps, hydrothermal vents, coral reefs, microbial mats, or deep biosphere. Metabolisms include different photosynthetic, autotrophic, and chemoautotrophic pathways. Interpretation of geochemical profiles and understanding of how microorganisms utilize and transform elements in aquatic systems. Concurrently scheduled with course CM214. P/NP or letter grading.

116. Paleontology. (4) Lecture, three hours; laboratory, two hours; field trips. Requisite: Life Sciences 7A or 7B. Review of major groups of fossil organisms and their significance in geology and biology. P/NP or letter grading.

CM114. Aquatic Geomicrobiology. (4) Same as Atmospheric and Oceanic Sciences CM114). Lecture, three hours; discussion, one hour. Recommended requisite: course C107 or Atmospheric and Oceanic Sciences M105. Fundamental geomicrobiological metabolic processes of aquatic environments. Principles of aquatic systems, how they impact their environment, and how they interact in complex ecosystems such as methane seeps, hydrothermal vents, coral reefs, microbial mats, or deep biosphere. Metabolisms include different photosynthetic, autotrophic, and chemoautotrophic pathways. Interpretation of geochemical profiles and understanding of how microorganisms utilize and transform elements in aquatic systems. Concurrently scheduled with course CM214. P/NP or letter grading.

118. Advanced Paleontology. (4) Same as Ecology and Evolutionary Biology M145.) Lecture, three hours. Requisite: course 116 or Ecology and Evolutionary Biology 110 or 117. Consideration of major factors that have influenced history of life, including analytical approaches to analyzing patterns in the fossil record, and contribution of data from stable isotopes, functional morphology, phylogenetics, and developmental biology. P/NP or letter grading.

119. Continental Drift and Plate Tectonics. (4) Lecture, three hours; computer-interactive tutorial, one hour. Requisite: course 1 or 100. Designed for juniors/seniors in physical sciences. Exploration of history and phenomenology of plate tectonics theory, with particular focus on observables and kinematics. Evidence supporting plate tectonics theory (magnetic anomalies, seismology, gravity). Tectonic, igneous, and metamorphic processes at plate boundaries. Focus on plate kinematics both past and present and learn how to compute and plot velocities. Exploration of plate dynamics including driving mechanism and convection. P/NP or letter grading.

119. Continental Drift and Plate Tectonics. (4) Lecture, three hours; computer-interactive tutorial, one hour. Requisite: course 1 or 100. Designed for juniors/seniors in physical sciences. Exploration of history and phenomenology of plate tectonics theory, with particular focus on observables and kinematics. Evidence supporting plate tectonics theory (magnetic anomalies, seismology, gravity). Tectonic, igneous, and metamorphic processes at plate boundaries. Focus on plate kinematics both past and present and learn how to compute and plot velocities. Exploration of plate dynamics including driving mechanism and convection. P/NP or letter grading.

120. Advanced Field Geology. (4) Lecture, two hours. Requisites: courses 61, 103A, 111, 112. Problems in regional geology and field research; preparation of written geologic reports. P/NP or letter grading.

121. Advanced Field Geology: Fieldwork. (4) Fieldwork, 20 hours. Advanced techniques in field geologic mapping and preparation of geologic maps and cross-sections, including igneous, metamorphic, and sedimentary terrains. 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 outreach to educate diverse student and community populations, including K-12 through higher-education audiences and general public. Focus on development of motivational and public communication skills as well as the outreach event planning and execution, including communication of science in multicultural settings. Active participation required in minimum of three scheduled outreach events over course of term, pro-
125. Volcanoes. (4) Lecture, three hours; laboratory, three hours; field trip(s). Requisite: course 1. Recommended: course 136A. 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.

126. Advanced Petrology. (4) Lecture, three hours; laboratory, three hours; field trip. Enforced requisite: course 103A. Understanding genesis of igneous rocks based on petrographic and geochemical 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 and history. P/NP or letter grading.

136A. Applied Geophysics. (4) Lecture, three hours; laboratory, three hours; field trips. Preparation: knowledge of MATLAB. Enforced requisite: course 71. Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A, Physics 1A, 1B, and 46L, or 6A, and 10B. Seismic reflection and refraction, Fourier analysis and deconvolution, vibroses, synthetic seismograms, marine seismics, interpretation, gravity and magnetic fields, inversion uniqueness and depth rules. 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 using natural and artificial electric and magnetic fields. Methods include self potential, resistivity, induced polarization, gravity, magnetics, magnetotellurics, magnetics, P/NP or letter grading.

136C. Field Geophysics. (6) Lecture, three hours; discussion, one hour; laboratory, two hours; fieldwork, 10 hours. Enforced requisite: course 136A. Application of seismic, gravimetric, magnetic, electrical, and other geophysical methods to geologic and engineering problems. Practical aspects of geophysical exploration, including planning, data collection, data reduction, and field work on unsolved problems (week-long field trip), P/NP or letter grading.

137. Petroleum Geology. (4) Lecture, three hours; Requisites: courses 61, 111. Geology applied to exploration for and production of natural gas and petroleum; structure and subsurface geology; problems of petroleum geology. P/NP or letter grading.

139. Engineering and Environmental Geology. (4) Lecture, three hours; discussion, one hour. Requisite: course 1 or 100. Recommended: course 111. Principles and practice of soil mechanics and foundation engineering in light of geologic conditions, recognition, prediction, and control or abatement of subsidence, landslides, earthquakes, and other geologic aspects of urban planning and subsurface disposal of liquids and solid wastes. P/NP or letter grading.


143A. Advanced Physical Sedimentology. (4) Lecture, three hours; fieldwork, three hours. Requisites: courses 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. Includes field and 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), Crust-to-core tour of Earth and physics used to explore it. Isostasy, plate tectonics, mantle convection, and geodynamics as discovered with tools of elasticity, fluid mechanics, and thermodynamics. P/NP or letter grading.


155. Planetary Physics. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, 32A, Physics 1A, 1B, 1CH, and 1CH. Formation of solar nebula; origin of planets and their satellites; comets, asteroids, and meteorites; celestial mechanics and dynamics; physics of planetary interiors, surfaces, and atmospheres. P/NP or letter grading.

156. Introduction to Space Plasma Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisite: Electrical Engineering 101A or Physics 110B. Lecture course on electrolytically-ionized gases, with emphasis on fundamental processes relevant to laboratory, space, and astrophysical plasmas. Examples mostly from space, planetary, and laboratory plasmas. Plasma waves, plasma instabilities, plasma heating, plasma magnetospheres, and radiation belts. Other applications include materials processing, generation of coherent radiation, particle beams, and fusion energy production. Letter grading.

160. Field Seminar. (2 to 6) Seminar, three hours; discussion, one hour; fieldwork, five to 20 days. Requisite: course 61. Field-based teaching and discussion forum that varies in focus from general geology through structure and tectonics, sedimentology, igneous and metamorphic petrology, volcanology, or other subdisciplines as prescribed. May be repeated for credit. Concurrently scheduled with course C260. P/NP or letter grading.


165. Tectonic Geomorphology. (4) Lecture, three hours; laboratory, two hours. Enforced requisite: course 103B. Corequisites: courses 61, 119. Mathematics 31A. Interactions between tectonic, climate, and surface processes shape landscapes over days to millions of years. Focus on quantifying how tectonic and surface processes interact to govern landscape evolution. How landscapes can provide insights into physical and chemical surface processes, including bedrock weathering, soil formation, hillslide transport, and river and glacial erosion. How tectonics, climate, and underlying lithology may influence those processes. Concurrently scheduled with course C245. P/NP or letter grading.


CM173. Earth Process and Evolutionary History. (6) Same as Ecology and Evolutionary Biology 173C. Lecture, four hours; laboratory, three hours. Requisites: Chemistry 14A, 14B (or 20A, 20B), Life Sciences 1, 2, 3, 4, and 7A, 7B, and 7C (or 7A and introductory course in geology). Exploration of relationships between life and the physical environment, including evolution of life, 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 Darwinian and Plateau tectonics revolutions. Study of formation of matter offers tools to understand geologic process of climate and ecology of Earth. Past climate change to examine processes for human and tectonics revolutions. Consideration of major events in history of life on Earth. Data and methods from geology, genetics, and geochemistry are integrated to reconstruct past events. This research may be Earth processes and how life shaped Earth. Concurrently scheduled with course CM273. Letter grading.

C179. Search for Extraterrestrial Intelligence: Theories and Applications. (4) Lecture, two hours; laboratory, two hours. Enforced requisites: Mathematics 31B, Physics 1B. Recommended: course 71, Computer Science 31, Physics 110B, Program in Computing 10A. Search for extraterrestrial intelligence (SETI) is based on number of astronomical, mathematical, statistical, and computational principles. Coverage of fundamental concepts in these disciplines in context of SETI: abundance and architecture of extrasolar 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 algorithms. Design and development of observational program, acquisition of telescope data, development of algorithms to analyze data, and writing of report on results. Concurrently scheduled with course C279. P/NP or letter grading.

186. Special Topics in Earth, Planetary, and Space Sciences. (4) Lecture/laboratory, to be arranged. Departmentally sponsored experimental or temporary course, such as by visiting faculty members. 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 special assignments, 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. Individual study with lecture course instructor to explore topics in greater depth through special 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 grade required.

193A-193B-193C. Undergraduate Journal Club Seminars: Earth, Planetary, and Space Sciences. (1–1–1) Seminar, one hour. Limited to undergraduate students. Study of current topics in Earth, planetary, and space sciences, including participation in weekly department colloquium. May be repeated for credit. P/NP grading.
Graduate Courses


200D. Planetary Surfaces. (4) Lecture, three hours. Introduction to basic physical processes (both exogenic and endogenic) shaping solid surfaces in solar system and planetary systems. Basic theoretical, physical processes, 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 background needed to understand and to participate in research related to formation and evolution of solar system and of other planetary systems. Description of star/planet formation process and subsequent evolution of planetary systems. Symbolic representations of observations and theory. Fosters interdisciplinary knowledge and communication between Departments of Earth and Space Sciences and Physics and Astronomy graduate students and faculty members. S/U or letter grading.


208. Physical Geochemistry. (4) Lecture, three hours. Prerequisite: course 51. Basic principles of physical chemistry for geologic applications. Thermodynamics and kinetics of reactions among minerals, natural waters, and magmas; construction and interpretation of phase diagrams; case studies of important geochemical and environmental issues. Concurrently scheduled with course C106. Additional independent research project and oral presentation required of graduate students. S/U or letter grading.

209. Isotope Geochemistry. (4) Lecture, three hours; discussion, one hour. Designed for junior/senior and graduate physical sciences students. Origin and abundance of elements; distribution and chemistry of elements in Earth and its environment. Concurrently scheduled with course C107. Additional homework and class presentation required of graduate students. S/U or letter grading.

210. Geophysical Kinetics: Thermochronometry. (4) Lecture, three hours; discussion, one hour. Designed for graduate physical and biological sciences students. Theoretical basis and application of thermochronometry: derivation of diffusion equation and methods of solving and interpreting solutions. Use of isochrons as tracers in crust and mantle processes. Stable isochrons as indicators of environment and paleoclimates. Concurrently scheduled with course C109. Additional literature survey, that may result in class presentation, expected of graduate students. S/U or letter grading.

211. Mathematical Methods of Geophysics. (4) Lecture, four hours. Requisites: Physics 105A, 110A, 112, 131. Recommended: Physics 132. Designed to provide mathematical background required for students pursuing PhD in Geophysics and Space Physics, as well as related programs in department. Extensive survey of these methods, with focus on geophysical applications. Student with needs that geophysics students encounter in their research. Letter grading.

212. 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 Earth, planetary, and space sciences course. Intended for graduate life and physical sciences students. Students should be familiar with general properties of surface environment and interplay between biology, human activity, and geology. Introduction to origin and composition of Earth, hydrosphere, atmosphere, crust, and hydrosphere. Examination of how these reservoirs are affected by biological cycles and feedbacks to biological evolution and diversity. Local and global-scale movements of biologically important elements like carbon, nitrogen, and phosphorus. Concurrently scheduled with course C113. S/U or letter grading.

C214. Research Topics in Earth, Planetary, and Space Sciences. (1) Research group meeting, one to three hours. Designed for departmental students participating in research group. Discussion of current research and literature in research specialty of faculty member teaching course, may be repeated for credit. Concurrently scheduled with course C296. P/NP grading.

198. Honors Research in Earth, Planetary, and Space Sciences. (4) Tutorial, two hours. Limited to seniors. For second- and third-year students seeking to broaden and deepen students’ knowledge of some phase of Earth, planetary, and space sciences. Development and completion of oral and written comprehensive examination under direct supervision of faculty mentor. May be repeated for maximum of 16 units. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Earth, Planetary, and Space Sciences. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Cummulating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

C206. Physical Geochemistry. (4) Lecture, three hours. Prerequisite: course 51. Basic principles of physical chemistry for geologic applications. Thermodynamics and kinetics of reactions among minerals, natural waters, and magmas; construction and interpretation of phase diagrams; case studies of important geochemical and environmental issues. Concurrently scheduled with course C106. Additional independent research project and oral presentation required of graduate students. S/U or letter grading.

C226. Advanced Petrology. (4) Lecture, four hours. Planetary rotations, satellite orbits, and tidal dissipation; planetary orbital system; resonance effects and chaos; spin-orbit and orbit-orbit coupling; planetary rings. S/U or letter grading.

220. Principles of Paleontology. (4) Lecture-discussion, one hour; laboratory, 10 days. Enforced requisite: course 121F. Open to qualified undergraduate biological 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 geological mapping projects at professional level. Resolves problems in Southern California and 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. Focus on seismic waves, travel-time seismology; epicenter location; amplitude variations; seismograph theory; explosion seismology; seismometry; focal conditions; surface wave analysis; microseisms and tsunamis. S/U or letter grading.


C226. Advanced Petrology. (4) Lecture, three hours; laboratory, three hours; field trips. Requisite: course 103A. Designed for graduate students. Understanding of the mineralogy and petrology of igneous rocks based on geological, chemometric, and other geological evidence and principles.
228. Introduction to Planetary Dynamics. (4) Lecture, three hours; laboratory/discussion, 90 minutes. Requisites: courses 200A, 200B, 200C. Designed for graduate students. Basic principles of planetary dynamics including core dynamics and core convection; mean field dynamo theory; kinematic dynamo theory; survey of modeling techniques and results. S/U or letter grading.

232A. Planetary Atmospheres and Climates. (4) (Same as Atmospheric and Oceanic Sciences M210) 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, parallel-parallel radiative transfer, climate dynamics, climate forcings/feedbacks, bifurcation, and climate hyster-esis. S/U or letter grading.

230. X-Ray Crystallography. (4) Lecture, three hours; laboratory, three hours. Requisite: course 51. Point, translation, and space group symmetry, diffraction of X-rays, 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. Requisite: course 51. Bonding, interatomic configurations, polymorphic transformations, isostim, 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.


234. Petrologic Phase Equilibria. (4) Lecture, three hours; discussion, three hours. Requisites: course 51. Chemical potential of minerals governing homogeneous and heterogeneous equilibria, with selected applications to mineral stability relations in igneous and metab-orphic rocks (fractional crystallization, partial melting, reaction crystallization, etc.). S/U or letter grading.

235A-235B-235C. Current Research in Geochemis-try. (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 repeated for credit. S/U grading.

244. Tectonics of Sedimentary Basins. (4) Lecture, two hours; discussion, two hours; field trips. Requisites: courses 103B, 111. Recommended: course C141. Plate-tectonics, basin 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 Tectonics. (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 repeated for credit. S/U grading.

246. Advanced Structural Geology. (4) Lecture, three hours; discussion, two hours. Requisite: course 111. Principles governing fracture, folding, and flow of rocks; solutions of structural problems at various scales; regional tectonic problems. S/U or letter grading.

251. Seminar: Mineralogy. (4) Seminar, three hours. Examination of groups of rock-forming minerals (e.g., feldspars), integrating such aspects as crystal struc-ture, chemical stability, phase equilibria, and petro-genesis. S/U or letter grading.

252. Seminar: Petrology. (4) Seminar, four hours; discussion, two hours. Phase equilibria under crustal conditions, chemistry of ocean waters, recent and an cient sediments, structure and chemistry of upper mantle, geochronology, and cos-mochemistry. 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; discussion, two hours. Flow and fracture in Earth’s crust from microscopic to continental scale and in examples. May include metamorphic terranes, glaciers, plutons, volcanoes, and consolidated or unconsolidated sediments. Modern concepts of oceanic basins; processes leading to segregation of continental-type rocks. S/U or letter grading.

257. Seminar: Paleontology. (4) Seminar/discussion, three hours. Adapta-tion, biogeography, paleocology, and paleobiogeography, with emphasis on relations to other disciplines. S/U or letter grading.

259. Seminar: Paleoecotectonics. (4) Seminar, two hours; discussion, two hours; laboratory: course C244. Basin evolution and paleogeography, with emphasis on Pha-nerozoic of Western U.S. S/U or letter grading.

260. Field Seminar. (2 to 6) Seminar, three hours; discussion, one hour; fieldwork, five to 20 days. Req-uire: course 61. Field-based teaching and discussion forum that varies in focus from general geology through structure and tectonics, sedimentology, igneous and metamorphic petrology, volcanology, or other subdisciplines as prescribed. May be repeated for credit. Concurrently scheduled with course C160. 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 convection and low fre-quency waves, and adiabatic particle motion in Earth’s radiation belts. S/U or letter grading.


263A. Solar System Magnetohydrodynamics. (4) (Same as Atmospheric and Oceanic Sciences M250A) Lecture, three hours. Requisite: Atmospheric and Oceanic Sciences C205A. Derivation of MHD equations with two fluids and Ohm’s law, small amplitude waves, discontinuities, shock waves, and instabilities. Applications to statics and dynamics of solar wind and planetary magneto-spheres and to solar wind-plasmasphere coupling. S/U for majors with consent of instructor after successful completion of written and oral compre-hensive examination and for nonmajors at discre-tion of major department or letter grading.

264. Order of Magnitude Earth and Planetary Sci-ences. (4) Seminar, three hours; discussion, three hours. Limited to departmental graduate students. Many graduate students have had little practice in making rough estimates or order of magnitude (OOM) assessments of physical problems, and even less practice at talking through problems with others. One key purpose is to develop a basis for taking precedence over understanding. Discussion of basic problems from OOM perspective, with focus on problems appropriate to Earth, planetary, and space sci-ences, to inculcate physically based reasoning and provide effective on-your-feet communication. Atten-dance at departmental colloquium required each week. S/U or letter grading.

265. Instrumentation, Data Processing, and Data Analysis in Space Physics. (4) Lecture, three hours. Requisites: Principles, testing, and operations of magnetometers and other instruments. Data processing, display, and archiving. Time-series analysis techniques, including filtering. Fourier series, spectral analysis, and power spectra. S/U or letter grading.

270A-M270B-M270C. Seminars: Climate Dynam-ics. (2 to 4 each) (Same as Atmospheric and Oce-anic Sciences M212A-M212B-M212C and Geography M270A-M270B-M270C.) Seminars, two hours. Archae-o logical, geochemical, micropaleontological, and stratigraphic evidence for climate change throughout geological past. Rheology and dynamics of climatic subsystems: atmosphere, oceans, ice sheets and marine ice, lithosphere and mantle. Climate of other planets. Modeling, simulation, and prediction of modern climate on monthly, seasonal, and interannual time scale. May be repeated for credit. S/U or letter grading.

CM273. Earth Process and Evolutionary History. (6) (Same as Ecology and Evolutionary Biology CM226.) Lecture, four hours; laboratory, three hours. Requisites: Chemistry 14A or 20A, 20B. Life Sciences 1, 2, 3, 4, and 7A, 7B, and 7C (or 7A and introductory course in geology). Exploration of rela-tionships between physicochemical systems, such as tec-tonics and climate, and how they affect surface and impact biology of Earth. Study of evolution of univer-ses, Earth, and life, with integration of history of sci-ence, including Darwinian evolution and plate tec-tonics revolutions. Study of formation of matter offers tools to understand geologic process of climate and ecology of Earth. Past climate change to examine ex-
C279. Search for Extraterrestrial Intelligence: Theory and Applications. (4) Lecture, two hours; laboratory, two hours. Enforced requisites: Mathematics 31B, Physics 1B. Recommended course 71L, Computer Science 31, Physics 110B, Program in Computing 10A. Search for extraterrestrial intelligence (SETI) is based on number of astronomical, mathematical, statistical, and computational principles. Coverage of fundamental concepts in these disciplines in 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 observational program, acquisition of telescopic data, development of algorithms to analyze data, and writing of report on results. Concurrently scheduled with course CM173. Letter grading.

282. Seminar: Geophysics. (4) Seminar, two hours; discussion, two hours. Seismology, geophysical prospecting, electromagnetic prospecting. Selected topics in Earth physics. Content varies from year to year. May be repeated for credit. S/U or letter grading.

M285. Origin and Evolution of Solar System. (4) (Same as Astronomy M285.) Lecture, four hours. Dynamical problems of solar system; chemical evidences from geochemistry, meteorites, and solar atmosphere; nucleosynthesis; solar origin, 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.

286A-286B-286C. Seminars: Planetology. (2–2–2) Seminar, two hours. Problems of current interest concerning moon, planets, and meteorites. May be repeated for credit. S/U or letter grading.


289. Seminar: Fluid Dynamics. (2) Seminar, one to two hours. Problems of current interest in fluid dynamics, with emphasis on geophysical applications. May be repeated for credit. S/U grading.

293A-293B-293C. Space Physics Journal Club. (1–1–1) Seminar, one hour. Limited to graduate space physics students in Earth, Planetary, and Space Sciences, Atmospheric and Oceanic Sciences, and Physics and Astronomy Departments. Review of current space physics literature. May be repeated for credit. S/U grading.

295A-295B-295C. Current Research in Earth, Planetary, and Space Sciences. (1–1–1) Lecture, one hour. Limited to graduate Earth, planetary, and space sciences students. Seminars presented by outside speakers, staff, and graduate students describing current research. Written reports required. May be repeated for credit. S/U grading.

C296. Research Topics in Earth, Planetary, and Space Sciences. (1) Research group meeting, one to three hours. Designed for departmental students participating in research group. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. Concurrently scheduled with course C194. S/U grading.

297. Advanced Techniques in Geologic Research. (2 to 4) Lecture, two to four hours. S/U grading.

298. Advanced Topics in Earth and Space Sciences. (2 to 4) Lecture, two to 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. 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 Earth, Planetary, and Space Sciences. (2) Seminar, one hour; discussion, two hours. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. Special emphasis on integration of technology in classroom. 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. S/U grading.

596. Directed Individual Study and/or Research. (2 to 12) Tutorial, to be arranged. May be repeated. S/U or letter grading.

597. Preparation for MS Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.

598. MS Research and Thesis Preparation. (2 to 12) Tutorial, to be arranged. May be repeated. S/U grading.


---

### EAST ASIAN STUDIES

**Interdepartmental Program College of Letters and Science**

10256 Bunche Hall Box 951487

Los Angeles, CA 90095-1487

**East Asian Studies**

310-206-6571

**Program e-mail**

William Marotti, PhD, Chair

**Faculty Committee**

- Michael S. Berry, PhD (Asian Languages and Cultures)
- William M. Bodiford, PhD (Asian Languages and Cultures)
- Michelle L. Carriger, PhD (Theater)
- Torquil Duthie, PhD (Asian Languages and Cultures)
- Michael D. Emmerich, PhD (Asian Languages and Cultures)
- Andrea S. Goldman, PhD (History)
- Christopher P. Hanscom, PhD (Asian Languages and Cultures)
- Katsuya Hirano, PhD (History)
- Kristopher W. Kersey, PhD (Art History)
- Hui-Shu Lee, PhD (Art History)
- Seiji Lippit, PhD (Asian Languages and Cultures)
- William Marotti, PhD (History)
- Sean A. Metzger, PhD (Theater)
- KyeYoung R. Park, PhD (Anthropology, Asian American Studies)
- Shu-meii Shih, PhD (Asian American Studies, Asian Languages and Cultures, Comparative Literature)
- Michael F. Thies, PhD (Political Science)
- Yinghui Wu, PhD (Asian Languages and Cultures)

---

**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.

---

**Graduate Major**

**East Asian Studies MA**

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In most cases, guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

---

**East Asian Studies 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.

**Graduate Courses**

291A-291B. Variable Topics in East Asian Studies. (4–4) Seminar, three hours. Selected topics on East Asia. May be repeated for credit with topic change. S/U or letter grading.
Ecology and Evolutionary Biology

Faculty Roster

Professors
Michael E. Alfaro, PhD
Priyanga A. Amarasekare, PhD
Paul H. Barber, PhD
Daniel T. Blumstein, PhD
Donald G. Buth, PhD
Peggy M. Fong, PhD
Gregory F. Grether, PhD
David K. Jacobs, PhD
James O. Lloyd-Smith, PhD
David K. Jacobs, PhD
Gregory F. Grether, PhD
Paul H. Barber, PhD

Professors Emeriti
Clifford F. Brunk, PhD
Martin L. Cody, PhD
Franz Engelmann, PhD
Arthur C. Gibson, PhD
Elma González, PhD
Malcolm S. Gordon, PhD
Patricia A. Gowaty, PhD
William M. Hamner, PhD
Henry A. Hespenheide, PhD
Stephen P. Hubbell, PhD
Kenneth A. Nagy, PhD
Peter M. Narins, PhD
Park S. Nobel, PhD
Philip W. Rundel, PhD
Charles E. Taylor, PhD
Henry J. Thompson, PhD
Tina I. Treude, PhD
Richard R. Vance, PhD
Blair Van Valkenburgh, PhD (Donald R. Dickey Professor Emeritus of Vertebrate Biology)
Eduardo Zeiger, PhD
Cheryl Ann Zimmer, PhD
Richard K. Zimmer, PhD

Associate Professors
Nathan J.B. Kraft, PhD
Kirk E. Lohmueller, PhD
Noa Pinter-Wollman, PhD
Morgan W. Tingley, PhD
Pamela J. Yeh, PhD

Assistant Professors
Nandita R. Garud, PhD
Colin T. Kremer, PhD
Elsa M. Ordway, PhD
Robert Eagle Tripati, PhD
Felipe Zapata, PhD

Adjunct Professors
Jon E. Keeley, PhD
Barbara J. Natterson, MD

Adjunct Associate Professors
Seth D. Riley, PhD
Xiaoming Wang, PhD

Adjunct Assistant Professors
Gary M. Bucciarelli, PhD
Rachel L. Kennison, PhD
Brenda J. Larison, PhD
Jonathan D. Marcot, PhD
Rachel Prunier, PhD
Debra M. Shier, PhD

Overview

Organismic biology touches every aspect of modern life, and understanding how living organisms are adapted to their environments is the major challenge of the discipline. To meet this challenge, the Department of Ecology and Evolutionary Biology offers undergraduate and graduate instruction at all levels of biology—from regulatory and physiological processes within organisms through the natural ecology and behavior of living organisms and to the population and community dynamics of multiple species. All of these subject areas address practical problems facing the world today, and all influence human decisions on matters ranging from conservation of the environment to advancement of medical science.

Undergraduate Study

The Bachelor of Science (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 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

Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 7A, 7B, 7C, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 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.

Policies

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.
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.

The Major
Students must take two courses from each principle:

2. **Information Flow:** Anthropology 124P, 128P, Chemistry and Biochemistry 100, 153A, 166, Ecology and Evolutionary Biology 100, 100L, 116, 120 (not open for credit to students with credit for course 120).

Each Life Sciences core curriculum course may be applied toward the major. The principal investigator determines to which the course applies, after the student’s work and quarter 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 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.

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 (FMQB). 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 103, 113B, 114B, 115, 116, 124A, 124B, 125, 126, 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 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.

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:

- 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

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 13, or Mathematics 31A or 31AL, 32A, and Life Sciences 40 or Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

Policies
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. 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.

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.

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, M157, or 184
2. At least 4 physiological units (one course) from Ecology and Evolutionary Biology M157, 162, 162L, 170, Physiological Science 165, or 166. Students with credit for Ecology and Evolutionary Biology 170 cannot also 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, C19A, C19B, 120, 121, 122, C126, 128, 129, 130, 133, C135, 136, 137, 142, 144, 149, 150, 151A, 152, 153, 154, 155, M157, 161, 162, CM173 (or Earth, Planetary, and Space Sciences CM173), C174, 175, M178 (or Bioengineering 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 the Field Biology Quarter (FBQ), Marine Biology Quarter (MBQ), or preapproved equivalent (see undergraduate adviser)
5. At least 8 units (two courses) from Anthropology 128P, chemistry (except Chemistry and Biochemistry 188SA 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 188SA through 196), geography (except Geography 188SA through 199), Life Sciences 107 (students with credit for Life Sciences 4 cannot take Life Sciences 107), mathematics (except Mathematics 105A, 105B, 105C, 106, 188SA through 199), microbiology, immunology, and molecular genetics (except Microbiology, Immunology, and Molecular Genetics 193A through 199), Molecular, Cell, and Developmental Biology 172, physics (except Physics 188SA through 199); recommended: taxon-oriented courses in ecological, behavioral, and evolutionary processes such as Ecology and Evolutionary Biology 111, 112, 113A, 113AL, 114A, 115

Ecology and Evolutionary Biology / 375
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, 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.

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 (FMQB). 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 103, 113B, 114B, 115, 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.

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/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

Preparation for the Major

Life Sciences Core Curriculum
Required: Atmospheric and Oceanic Sciences 1 or 9, 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.

Policies
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.

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 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.

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, 128, 140, 142, 170 (unless taken under item 2), C174, 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, M137 (or Geography M110), 132, 136, 137, 140, 142, 151A, 152, 154, 155, M157, 161, 162, 170, C172, M178 (or Bioengineering CM186 or Computational and Systems Biology M186 or Computer Science CM186), 183, or 184
5. At least 4 evolution units (one course) from Anthropology M128S (or Society and Genetics M142), Ecology and Evolutionary Biology 110, 120, 121, 130, 133, C135, 140, 144, 149, 150, CM173 (or Earth, Planetary, and Space Sciences CM173),
The department offers three quarter-long programs with credit for 199 courses from other departments (MBQ) or preapproved equivalent (see undergraduate adviser).

7. One additional physical, chemical, or geological oceanography course from Atmospheric and Ocean Sciences 102, 103, 104, M105 (or Geology and Evolutionary Biology M139), 130, Chemistry and Biochemistry 103, 135A, Earth, Planetary, and Space Sciences 100, 116, 119, C141, 153, Ecology and Evolutionary Biology M131 (or Geography M110), 153, 198B, 199, Geography 101, M118 (or Atmospheric and Oceanic Sciences M106), 123, 130, 169, Mechanical and Aerospace Engineering 103, or ISOA, Molecular, Cell, and Developmental Biology 172.

Policies
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 100 and 112, prior to participating in the Marine Biology Quarter. Contact the Undergraduate Advising Office for all requirements for the Marine and Field Biology quarters.

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 103, 113B, 114B, 115, 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 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.

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, Ecology and Evolutionary Biology 100, and 116 (or Environment 121) 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 required to some of the upper-division courses accepted for the minor.

Ecology and Evolutionary Biology / 377

The Minor
Required Lower-Division Course (5 units): Life Sciences 7B.

Required Upper-Division Courses (28 units minimum): Ecology and Evolutionary Biology 100, 116 (or Environment 121), and four to six courses (19 units minimum) from 100L, 101, 103, 105, 109L, 111, 112, 113A, 113AL, 114A, 114B, C119A, C119B, 122, M127 (or Environment M102 or Geography M102), 129, M131 (or Geography M110), 140, 142, 149, 151A, 152, 153, 154, 155, 161, 162, 162L, 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 Quarter 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 be in addition to units applied toward major requirements or another minor. 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.

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, 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, Ecology and Evolutionary Biology 100, and 120 or 185 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
ecology.

**Ecology and Evolutionary Biology**

**Lower-Division Courses**

10. Plants and Civilization. (4) Lecture, three hours; demonstration, one hour. Designed for nonmajors. Origin of crop plants; man’s role in development, distribution, and modification of food, fiber, medicinal, and other plants in relation to their natural history. P/NP or letter grading.

11. Biomedical Research Issues in Minority Communities. (5) Discussion, four hours. Limited to 30 students. Discussions and student presentations on biomedical research as it affects minority communities, with emphasis on methodology, design, consequences, and ethics of current research. Discussion leaders provide information on preparation and training for research careers. P/NP or letter grading.

12. Biodiversity and Extinction: Crisis and Conservation. (4) Lecture, three hours; discussion, one hour. Examination of ecological and evolutionary principles necessary to understand nature and importance of worldwide environmental crisis. Research by students of specific conservation issues and presentation of results to class. P/NP or letter grading.


15. Why Ecology Matters: Science Behind Environmental Issues. (5) Lecture, three hours; laboratory, two hours. Basic ecological concepts, 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 (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.

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 areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

17. 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.

18. Living Ocean. (5) 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 oceans, with emphasis on their effects on organisms. P/NP or letter grading.


20. Variable Topics in Ecology and Evolutionary Biology. (1 to 4) Seminar, three to 12 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.

21. 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, 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.

22. AAP 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 research as undergraduate students. P/NP grading.
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 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 Ecology and Behavior. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Not open for credit to students with credit for course 211A, 124A, 124B, 129, 129S, 132, 134B, 136, or 151B. Introduction to methods and topics in ecology and behavior. Growth and regulation of populations, organization of communities and ecosystems, 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. Requisites: course 100 (minimum grade C) and Life Sciences 1 or 7B. Introduction to research methods in ecology and behavior, resulting in independent research proposals and presentation of research as undergraduate students under guidance of faculty mentor. Students will participate in research as undergraduate assistants. P/NP or 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 phytoplankton, algae, sea grasses, and mangroves, with focus on function and role of marine plants and their ecological role in different marine habitats and ecosystems. Letter grading.


103. Plant Diversity and Evolution. (5) Lecture, three hours; laboratory, three hours; field trip. Requisite: Life Sciences 1 or 7B. This course introduces students to green plant biology by exploring the most 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 morphology, functional, ecological, and biogeographical perspectives. Letter grading.

105. Biology of Invertebrates. (6) Lecture, three hours; laboratory, six hours; discussion, two hours. Requisite: Life Sciences 1 or 7B. Introduction to systematic, evolutionary, natural history, morphology, and physiology of invertebrates. P/NP or letter grading.

106. Experimental Marine Invertebrate Biology. (4 or 6) Lecture, two hours; laboratory, 12 hours. Requisite sites: course 105, Physiological Science 166 (may be taken concurrently). Offered either as 6-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 laboratory and field investigations. P/NP or letter grading.

107. Evolution, Development, and Function of Invertebrate Animals. (6) Lecture, three hours; laboratory, three hours; three week-end field trips. Requisite: course 105 or completion of Marine Biology Quarter. Advanced course in marine biology exploring evolutionary relationship of animal groups and evolution of marine species, comparative development and developmental genetics of invertebrate form, and form and function as they relate to marine invertebrates. Letter grading.

108. Biodiversity in Age of Humans. (5) Lecture, two and one half hours; discussion, one hour; field trip, six to eight hours. Requisite: course 100. To explore how to use scientific method, ask and answer questions about eDNA, analyze literature, and develop professional skills applicable to any major or career. Series of biointeractive videos, podcasts, 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. Requisite: Life Sciences 1 or 7B. Strongly recommended for prospective Marine Biology Quarter students. Introduction to physical and biological world of 70 percent of planet: oceans. Designed to be integrative, with focus on geological evolution of seas, physical and chemical properties of water, and how these abiotic processes shape ecology and evolution of marine organisms and environments. Letter grading.

109L. Introduction to Marine Science Laboratory. (4) Laboratory, three hours; four field trips. Requisites: course 109 (may be taken concurrently), Life Sciences 1 or 7B. Introduction to marine environments and methods used to study them. Exploration of variety of concepts in marine science, ranging from oceanography to behavior, primary productivity, and marine biodiversity, with emphasis on experimental design and scientific writing. 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.

110. Vertebrate Morphology. (6) Lecture, three hours; laboratory, five hours. Requisites: Life Sciences 1, 2, or 7B, and 7A and 7B. Study of vertebrate morphology, function, and evolution from viewpoint of comparative anatomy of adult and larval forms, biomechanics, development, and paleontology. Laboratory study of selected vertebrates. Letter grading.

111. Biology of Vertebrates. (5) Lecture, three hours; laboratory, three hours; four one-to two-day field trips. Requisites: Life Sciences 1 or 7B. Adaptations, behavior, and ecology of vertebrates. Letter grading.

112. Ichthyology. (6) Lecture, three hours; laboratory, six hours; field trips. Requisite: Life Sciences 1 or 7B. Highly recommended for students interested in marine biology of freshwater and marine fishes, with emphasis on their evolution, systematics, morphology, zoogeography, and ecology. Field trips to examine fishes of Southern California shoreline, tidepools, and coastal streams. Letter grading.

113A. Herpetology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1 or 7B. Recommended requisite: course 120. Exploration and summarization of evolution, ecology, life history, and conservation biology of world's reptile and amphibian fauna. Topics include conservation assessments both globally and in California, discussion sections focused on student-led critical evaluations of current literature, and in-class meetings with professional herpetologists to share their professional experiences and job opportunities. Letter grading.

113AL. Herpetology Laboratory. (4) Laboratory, six hours; field trip. Corequisite: course 113A. Primary focus on learning defining features, biogeography, and natural history of world's reptile and amphibian species, with special focus on California species. Field trips to observe living species in field, including one extended three-day trip. Letter grading.

113B. Field Herpetology. (8) Requisite: Life Sciences 1. Recommended: courses 100, 111. Two weeks of off-campus research. Five to six week-long course and offered only as part of Field Biology Quarter. Biology, particularly ecology and behavior, of reptiles and amphibians in their natural habitat. Students carry out independent research projects, then write up and orally present their results in seminar fashion, Letter grading.

114A. Ornithology. (6) Lecture, three hours; laboratory, field trips, three hours. Requisite: Life Sciences 1 or 7B. Recommended: course 100. Systematics, distribution, physiology, behavior, and ecology of birds. Letter grading.

114B. Field Ornithology. (6) Requisite: Life Sciences 1 or 7B. Recommended: course 100. Two to three weeks of off-campus research projects followed by lecture course and offered only as part of Field Biology Quarter. Biology, particularly ecology and behavior, of birds in their natural habitat. Letter grading.

115. Mammalogy. (5) Lecture, three hours; laboratory, three hours. Requisite: Life Sciences 1 or 7B. Topics in mammalian biology, including evolution, ecology, behavior, and physiology of marine invertebrates. Letter grading.

116. Conservation Biology. (4) Lecture, three hours; discussion, two hours. Requisite: Life Sciences 1 or 7B. Recommended: course 100. Not open for credit to students with credit for course 121. Study of ecological and evolutionary principles as they apply to conservation of genetic, species, and ecosystem diversity. Discussion sections focus on interactions of science, policy, and economics in conserving biodiversity. Oral and written student presentation on specific conservation issues. Letter grading.

117. Evolution of Vertebrates. (5) Lecture, three hours; laboratory; three hours. Requisite: course 110. Recommended requisite: one general general biology course. Historical record of evolution of vertebrates, with emphasis on paleobiology and morphology of tetrapods. P/NP or letter grading.

118. Plant Adaptations. (6) Lecture, one hour; field trip, 10 hours. Requisite: course 100. Five-week course offered only as part of Field Biology Quarter. Field-oriented introduction to mechanisms by which vascular plants adapt to abiotic and biotic environments using community, population, and ecophysiological levels of integration. Letter grading.

C119A. Mathematical and Computational Modeling in Ecology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 30B or Mathematics 3B or 31A. Recommended: courses 100, 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 biological and physical sciences. Consecutively scheduled with course C219A. P/NP or letter grading.

C119B. Modeling in Ecological Research. (4) Lecture, two hours; discussion, two hours. Recommended requisite: coursework in mathematical techniques in mathematical and computational modeling of ecological dynamics and other population dynamic problems. Independent research projects developed by students. Topics include model formulation, stochastic models, fitting models to data, sensitivity analysis, presentation of model results, and other topics from current literature. Consecutively scheduled with course C219B. P/NP or letter grading.

120. Evolution. (4) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L, Mathematics 3A and 3B (or 31A). Recommended prerequisite: one general general biology course. P/NP or letter grading.

121. Molecular Evolution. (4) Lecture, three hours; discussion, one hour. Requisites: courses 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. Requisites: course 100, Life Sciences 1 or 7B, Mathematics 3B or 31A or Life Sciences 30B. Highly recommended: Mathematics 3B, 32A, De-
signed for departmental majors specializing in envi
ronmental and population biology. Introduction to
population and community ecology, with emphasis on
growth and distributions of populations, interactions
between species, and structure, dynamics, and func-
tions of communities and ecosystems. P/NP or letter
grading.

123A–123B. Field Marine Ecology. (4 or 8 each)
Lecture, five hours; laboratory, 15 hours. Recommended:
courses 111, 120, 122. Offered as part of Field Biology
Quarter. Field and laboratory research in ecology; collec-
tion, analysis, and write-up of numerical data, with emphasis
descriptive and quantitative study of a species or study of
ecology of marine organisms, populations, communities,
and ecosystems. Original research project re-
quired. Letter grading. 123A. In residence at research
station located outside continental U.S. 123B. In res-
idence at research station located within U.S., including
Alaska and Hawaii.

124A–124B. Field Ecology. (4 or 8 each)
Lecture, five hours; laboratory or field trip, 15 hours. Requisites:
course 100, Life Sciences 1 or 7B. Offered either as 4-
unit quarter-long course or as 8-unit Field Biology
Quarter course. Animal communication behavior, trop-
ical vertebrate biology, and evolution of information
processing systems. Eight-unit course covers same basic
lecture and laboratory, with six weeks of field study
followed by extended field trips where students do in-
dividual projects in animal communication. Letter
grading.

C126. Behavioral Ecology. (4 or 8)
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. Offered either as a 4-
unit quarter-long course or as 8-unit Field Biology
Quarter course. Animal communication behavior, with extended consideration of
selfish DNA, conflict with genomes, natural selection and coevolution, and divergence of function and cooperation. Social learning, game theory and alternative life histories, and human behav-
ioral ecology. Eight-unit course covers several major areas in an integrated way, including ethology, social
behavioral, morphological, and ecological mecha-
nisms desert animals use to enhance their survival in
rival habitats. Students carry out supervised research
projects, then write and present their results in seminar fashion. Letter grading.

C137. Chemical Communication. (4)
Lecture, three hours; discussion, one hour. Enforced requisite: Life Sciences
3A, 3B, 31A, and 31B or Life Sciences 30B. Basic prin-
ciples of genetics of population, dealing with genetic
traits and selective forces. Lecture, two and
1/2 hours; discussion, one hour. Requisite: Life Sciences
1 or 7B. Recommended: course 100. Two weeks of
summer study of major groups of organisms from California. Observation and collection on land that comprises:
Baja California Peninsula. Field research in behavioral ecology, empha-
sizing animal communication. Design and execution of individual and small group field projects during
extended field trip. Letter grading.

129. Animal Behavior. (4)
Lecture, three hours; dis-
cussion, two hours. Requisites: course 100, Life Sci-
ences 1 or 7B. Introduction to behavioral ecology. Methods and results of evolutionary approaches to
study of animal behavior, including foraging strategies, social organization, behavior, cooperation, and social organization. Letter grading.

130. Principles of Systematic Biology. (4)
Lecture, three hours; discussion, two hours. Requisite: Life Sci-
ences 1 or 7B. Recommended: courses 120, 135.
Concepts and methods of comparative bi-
ology as they apply to inference of evolutionary rela-
tionships among organisms. Principles and applica-
tion of biological nomenclature. Letter grading.

M131. Ecosystems and Biogeography. (M110)
Lecture, three hours; field trips. Requisite: Geo-
graphy 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 en-
ergy 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; labora-
tory/field trip, 10 hours. Requisites: course 100,
Life Sciences 1 or 7B. Recommended: course 129.
Five-week course as part of Field Biology
Quarter. Field research in behavioral ecology, empha-
sizing animal communication. Design and execution of individual and small group field projects during en-
tended field trip. Letter grading.

133. Elements of Theoretical and Computational
Biology. (4)
Lecture, discussion, one hour; laboratory, two hours. Requisites: Life Sciences
1, 2, 3, 4, 23L, and Mathematics 3A, 3B, and 3C, or
1A and 1B, or Life Sciences 3A and Mathematics 3A or
1B or 3A or 31A. Emphasis on learning
basic concepts, principles, and methods of comparative bi-
ology as they apply to inference of evolutionary rela-
tionships among organisms. Principles and applica-
tion of biological nomenclature. Letter grading.

133B. Field Physiological Ecology of Desert Ani-
mals. (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 course. Analysis of behavioral
characteristics, locomotor behavior, physiological,
and ecological mecha-
nisms desert animals use to enhance their survival in
rival habitats. Students carry out supervised research
projects, then write and present their results in seminar fashion. Letter grading.

C135. Population Genetics. (4)
Lecture, three hours; discus-
sion, one hour. Enforced requisite: Life Sciences
4 or 7A. Strongly recommended: course 100. Two weeks of
summer study of major groups of organisms from California. Observation and collection on land that comprises:
Baja California Peninsula. Field research in behavioral ecology, empha-
sizing animal communication. Design and execution of individual and small group field projects during
extended field trip. Letter grading.

136. Ecological Restoration. (6)
Lecture, two and
1/2 hours; discussion, one hour. Requisite: Life Sciences
1 or 7B. Recommended: course 100. Survey of
ecological and ecosystem restoration in theory, history, and conservation of natural
resources. Emphasis on practical applications in specific ecosystems. Letter grading.

142. Aquatic Communities. (4)
Lecture, three hours; discussion, three hours. Requisites: course 100, Life Sciences

144. Prehistoric California. (5)
Lecture, three hours; labora-
tory, three hours; field trips. Requisite: Life Sci-
ciences 1 or 7B. Recommended: course 129. Survey of history of life as illustrated in fossil record of California. Examination of major groups of organisms from California. Observation and collection on land that comprises:
Baja California Peninsula. Emphasis on how faunas have changed over time, especially during periods of diversification and extinction. Influence of major events of geologic, climatic, and environmental change on living organ-

M145. Advanced Paleontology. (4)
Same as Earth, Planetary, and Space Sciences M118.) Lecture, three hours. Requisite: course 110 or 117 or Earth, Plane-
tary, and Space Sciences 116. Consideration of major faunal and floral biomes, including analytical approaches to analyzing patterns in fossil record, nature of rock record, and contribution of data from stable isotopes, functional morphology, phyto-
egeny, and developmental biology. P/NP or letter grading.

147. Biological Oceanography. (4)
Lecture, five hours; labora-
tory, fifteen hours. Requisites: Chemistry 1A, 1B, and 1BL, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL. Life Sciences 1, 2, 3, 23L. Chemical signals are most important means by which organisms communicate. Exploration of how chemical signals are produced, transported, and influ-
ence behavior of microbes, plants, and animals. Syn-
thetic approach, with emphasis on applications to cell biology, ecology, and evolution. P/NP or letter
grading.

M139. Introduction to Chemical Oceanography. (4)
(Same as Atmospheric and Oceanic Sciences M155.) Lecture, three hours; discussion, one hour. Introduc-
tions to physical, chemical, and biological factors in the study of physical, chemical, and biological processes governing this
combination 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). Emphasis on primary production, export production, remineralization, dia-
genesis, air-sea gas exchange processes. Letter grading.

140. Biology of Marine Mammals. (4)
Lecture, three hours; dis-
cussion, one hour. Requisites: course 100, Life Sciences
1 or 7B. Examination of evolution, systematics, natural history, anatomy, physiology, and conservation of mammals secondarily adapted to life in oceans: ceta-
cines, odontocetes, pinnipeds, sirens, and polar bear. Through lectures and readings from recent pri-
mary literature, students gain understanding of special adaptations to mammalian life in aquatic environment, roles of marine mammals as predators, cyclists, and general principles of marine mammal population bi-
ology. Study of historical and contemporary exploita-
tion, conservation, and management of marine mammals. Letter grading.

141. Marine Geology. (4)
Lecture, three hours; discus-
sion, three hours. Requisites: course 100, Life Sciences
1 or 7B, Mathematics 3C or 32A or Life Sciences 30B. Recommended: course 129. Offered either as a 4-
unit quarter-long course or as 8-unit Field Biology
Quarter course. Analysis of the seafloor, including physical, chemical, and biological processes affecting
sedimentation and movements of organisms in marine environment. Laboratory includes experimental stu-
dies of local marine factors that affect primary and secondary production and nutrient flux. Letter grading.

148. Biology of Marine Plants. (4)
Lecture, five hours; dis-
cussion, fifteen hours. Requisites: Chemistry 1A, 1B, and 1BL, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL. Life Sciences 1, 2, 3, 23L, and 7A, 7B, and 23L. Introduction to general biology of


149. Evolutionary Genomics. (4) Lecture, two hours; laboratory, two hours. Requisites: Life Sciences 7A, 7B, 7C, 23L. Evolutionary genomics is study of variation and changes in genomic sequences due to natural selection pressures. Virtually all organisms on this planet experience evolutionary pressures. Evolutionary pressures act on genomic variation, and in turn can change the genetic makeup of populations and whole species. Study of how evolutionary forces of mutation, drift, selection, recombination, and migration can change genomes. Analysis of genomic data to make evolutionary inferences. Letter grading.

150. Principles of Genetics. (4) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14A or 20A, 14C or 30A, Life Sciences 7A, 7B, 7C, 23L. Genetics in most diverse and inclusive of biological sciences. Fields as divergent as medicine and evolution require understanding of fundamental concepts of heredity as they apply to individuals and populations. Many important social questions require understanding of genetics, such as informed decision making. Study of foundations of genetics at level expected of all biologists. Students learn basic terminology of field and physical and biochemical basis of various modes of heredity, Mendelian genetics, and meiotic recombination. Understanding genetic principles is key to understanding genetic effects or implications of various aspects of genetics, and tools necessary to form informed opinions on these issues. Letter grading.

151A. Tropical Ecology. (4) Lecture, one hour; discussion, two hours. Requisites: Life Sciences 1 or 7B. Broad introduction to biodiversity, community structure, and dynamics and ecosystem function of range of tropical forest habitats. Discussion of such topics as biogeography, forest structure, plant growth forms, animal communities, herbivory, forest dynamics, and disturbance regimes. P/NP or letter grading.

151B. Field Tropical Ecology. (8) Lecture, three hours; fieldwork, five hours. Requisites: course 100, Life Sciences 1 or 7B. Two weeks of off-campus research projects followed by two-week lecture course and offered only as part of Field 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 plant biology and ecological adaptations in biomes of world, explaining distribution and dynamics of world vegetation types. Focus on processes across scales from cells to ecosystems. Emphasis on understanding community processes and how they are adapted to their environment. 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 2, 3, 4, 23L. Physics 6A. Chemical and physical principles of environmental response of organisms to their environments. Focus is integrative, providing comprehensive training in physical sciences of physics and chemistry as applied to environmental processes, and consequences of these processes for individual performance, populations, and communities. Covers variety of topics in applied chemistry, including proton pumps, carbonate biogeochemistry and ocean acidification, and allometric scaling of metabolism and effects of temperature on physiological function. Fundamentals of boundary-layer physics and their role in organisms’ life history. Physics as natural life history: how organisms of same or different chemically structures to avoid, resist, or comply to fluid (air and water) motion. P/NP or letter grading.

154. California Ecosystems. (5) Lecture, three hours; laboratory, five hours. Requisites: Life Sciences 1 or 7B. Recommended: course 100. Introduction to structure, biodiversity, and dynamics of California ecosystems, with focus on Southern California, and impact of human activities on these systems. P/NP or letter grading.

155. Community Ecology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Community ecology is study of biodiversity in ecological context: structure and dynamics of natural species assemblages in space and time, and ecological and evolutionary mechanisms that determine which species are present with credit for course 162. Emphasis on evolution of theories of community organization and evidence, both observational and experimental, bearing on the mechanisms and principles of occurrence of diverse arrays of communities—plant, animal, microbial, terrestrial, and marine—go to appreciate of extraordinary natural history and diversity of life on Earth as it exists in its living ecological context. Discussion of how ecological communities are responding now and will respond in future to anticipated global change, and conservation implications of these changes. Letter grading.

156. Biology and Social Justice. (4) Lecture, four hours. Consideration of intersection of biological discovery and human society to better understand how scientific advances have both promoted and mitigated social inequalities and inequities. Emphasis on understanding the implications of various aspects of genetics, and tools necessary to form informed opinions on these issues. Letter grading.

157. Introduction to Diversity, Health Disparities, and Environment. (2) Seminar, one hour; discussion, one hour. Requisite: Life Sciences 7B. Focus on intersection between health and environment. Seminar includes guest lecturers focused on environmental determinants of health, and panel discussions focused on careers addressing health disparities. Discussion where students deconstruct research talks to better understand how health disparities are conducted. Entry course for three-quarter UCLA-Howard Hughes Medical Institute Health Disparities program. Letter grading.

158. Computational Approaches. (5) Same as Computational and Systems Biology M150.) Lecture, four hours; laboratory, three hours. Requisites: Life Sciences 7A, 7B, 7C. Mathematics 33A and 33B, with grades of C or better. Recommended Requisites: Mathematics 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 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, cell to organism, and migration, neural systems, vascular networks, sleep, drug interactions, gene expression, and more. Students learn how to manipulate data, basic coding, and how to instatiate their mathematical and biological intuition through numerical solutions and simulations. Letter grading.

160. Introduction to Plant Biology. (4) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 162. Emphasis on aspects of plant biology. Topics include plant body, reproduction, plant diversity, gene expression, and basic plant function. Letter grading.

161. Plant Function. (4) Lecture, two and one-half hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Introduction to ecology of terrestrial plants, covering individuals, populations, communities, and global processes. Topics include plant form and function, seed dormancy and population dynamics, life histories, disturbance and succession, community structure and dynamics, and global change. P/NP or letter grading.

162. Plant Physiology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 2, 3, and 23L, or 7A, 7B, 7C, and 23L. Basic aspects of plant function, including photochemistry, biochemical, and physiological aspects of photosynthesis. Carbon and water relations, transpiration, and nutrient uptake. Organic and inorganic nutrient interactions and compartmentation. Water relations, ion transport, flowering, hormone action, and plant response to stress. Letter grading.

162L. Plant Physiology and Ecophysiology Laboratory. (4) Laboratory, 12 hours. Requisites: course 152 or 162 (may be taken concurrently), Life Sciences 1, 2, 3, and 23L, or 7A, 7B, 7C, and 23L. Focus on whole-plant physiology and ecophysiology from biochemical and molecular processes to whole-plant function and field performance to gain understanding and appreciation of plant function, including dynamic processes of growth, development, and reproduction. Exercises provide training in approaches and instrumentation such that students become scientists, applying physiological techniques to answer questions on plant function, including use of FastPlant (anatomy) and FastPlant (growing experiment). 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.


166. Biology of Marine–Land Interface. (4) Lecture, five hours; fieldwork, 15 hours. Enforced requisites: courses 109, 109L, Chemistry 14A, 14B, 14BL (or 20A, 20B, 20L), Life Sciences 1, Physics 6A. Students who enroll in Marine–Land Interface is one of most biologically rich, yet challenging habitats on Earth. Organisms must contend with wide range of environmental conditions, including extreme variation in temperature, salinity, UV irradiation, osmotic stress, and water availability. These habitats are among the best natural laboratories for investigating patterns and processes of organism-environment interaction. Basic training in characterization of physical and chemical environmental features to establish basic tenets of organismal performance, as well as population and community dynamics in response to extreme environmental challenges. Foraging of critical new linkages between chemistry,
170. Animal Environmental Physiology. (6) Lecture, three hours; laboratory, six hours. Requisites: Chemistry 140D, 30B and Laboratory Sciences 1, 2, 3, 23L, or Life Sciences 7A, 7B, 7C, and 30B or Mathematics 3C or 32A, Physics 1C and 4BL, or 5B or 6C or 6CH. Not open for credit to students with credit for Physiological Science 166. Designed for Ecology, Behavior, and Evolution majors; Introduction to physiology (function) of animal organs and organ systems, with emphasis on environmental interactions and ecological adaptation and defense.

171. Coming of Age on Planet Earth. (4) Lecture, three hours; discussion, one hour. Across phylogenetically broad range of species, individuals in same developmental stage of life share vulnerabilities and similar challenges. Greatly increased numbers of humans facing animals as they transition from juveniles to mature adults through integration of behavioral ecology, neuroscience, life history theory, and phylogenetic modeling. Emphasis on life history theory, phylogenetic, and developmental biology perspectives. Letter grading.

C172. Advanced Statistics in Ecology and Evolutionary Biology. (4) Lecture, two hours; laboratory, two hours. Enforced Requisite: Life Sciences 40 or Statistics 10 or 13. Overview of and application of advanced statistical methods that go beyond linear models and mean comparison, including bootstrapping, permutations, Bayesian statistics, mixed models, and non-parametric analysis. At course end students should be able to explain which statistical approaches are appropriate for different types of research questions and critically evaluate their outputs. All statistical analyses conducted in R. Concurrently scheduled with course C242. P/NP or letter grading.

CM173. Earth Process and Evolutionary History. (6) [Same as Earth, Planetary, and Space Sciences CM173.] Lecture, three hours; laboratory, three hours. Requisites: Mathematics 1A, 1B, and 1C. Investigation, discussion, and laboratory. Historical and current events, and the geologic history of Earth. Letter grading.

C174. Comparative Biology and Macroevolution. (4) Lecture, three hours; laboratory, three hours. Requisite: Life Sciences 1 or 7B. Recommended: one introductory statistics course. Modern comparative biology and evolution provide framework for understanding of major evolutionary events and patterns of biological diversity and complexity. Letter grading.

175. Evolutionary Dynamics of 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, four hours. Requisite: Life Sciences 1 or 7B. Debates and discussions on current ethical considerations relevant to fields of ecology, evolution, conservation, and behavior. Letter grading.

C177. Practical Computing for Evolutionary Biologists and Ecologists. (4) Lecture, three hours; laboratory, one hour. Introduces fundamental mathematical and computational methods in evolutionary biology using Python, with an emphasis on modeling. Letter grading.

M178. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) Same as Bioengineering C150 and Systems Biology CM186, and Computer Science CM186.) Lecture, four hours; laboratory, two hours; discussion, one hour. Requisites: Life Sciences 30A, 30B, Mathematics 51A, 51B, or Math 132A or 132B, or Mathematics 3A, 3B, and 3C, or Mathematics 31A, 31B, 32A, or 32B, or Mathematics 320A or 320B. Dynamic bioinformatics modeling and computer simulation methods for studying analyzing biological/biomedical systems at multiple levels of organization. Intermediate linear and nonlinear control system, multicompartamental, epidermological, pharmacokinetic, and other biomodeling methods applied to life sciences problems at molecular, cellular, organ, and population levels. Biological systems are modeled and simulated using Python and R. Letter grading.

C179. Communicating Science to Informal Audiences. (5) Lecture, three hours; discussion, one hour; laboratory, fieldwork, two hours. Requisite: one course in course 25 or Atmospheric Oceanic Sciences M10, Chemistry 2, 14A, 20A, Life, Planetary, and Space Sciences 1, 15, Environmental M10, Life Sciences 5, or Biology 113C. Combined instruction in inquiry-based teaching methods and learning pedagogy, with six weeks of supervised teaching experience at Santa Monica Pier Aquarium. Students will develop content, present, and, with guidance of the instructor, gain knowledge and receive mentoring on how to improve their presentations to develop ocean science literacy at all levels and to encourage public understanding of science and environmental stewardship. Need for young scientists to learn how to communicate about their science to audiences is especially critical when considering that Americans are expected to comprehend and respond to increasingly complex issues, such as global climate change, with limited understanding of how natural world works. Concurrently scheduled with course C237. Letter grading.

180A-180B. Seminars: Biology and Society. (2–4) Seminar, one to four hours. (course 180B). Investigations and discussions of current socially important issues involving substantial biological considerations, either or both as background for policy and personal action. May be repeated once for credit with instructor change. Letter grading.


183. Finding Ecological Solutions to Environmental Problems. (4) Seminar, two hours; discussion, two and one half hours. Requisite: course 100. Ecological practitioners in which students work in teams with client (e.g., non-profit, governmental) to research and propose solutions to diverse issues. Students learn practical skills to apply ecological science to solving of diverse and interdisciplinary environmental problems, in intimate and participatory environment. Students learn to introduce high-quality academic work at professional level. Letter grading.

184. Evolution, Development, and Disease. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 7B. Recommended requisite: course 103, 110, 120, M157, C174, or 185. Exploration of developmental mechanisms underlying evolution of animal design, including impacts of environment on these mechanisms. Exploration of what happens to animal form, including that of humans, when these developmental mechanisms are disrupted by environmental perturbations. Letter grading.

185. Evolutionary Medicine. (4) Lecture, two and one half hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Not open for credit to students with credit for course 120. Designed for departmental majors specializing in environmental and population biology. Exploration of how evolutionary and ecological principles can help us understand and find solutions for current important issues involving substantial biological considerations in ecology and evolutionary biology. Contact Undergraduate Advisory Office for current topics. May be repeated for credit. P/NP or letter grading.

186. Special Courses in Ecology and Evolutionary Biology. (2) Seminar, two hours. Departmentally 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 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.


Quarter: Introduction to natural history and ecology of host-parasite interaction involving intertidal fish hosts. Laboratory includes collection and preparation techniques. Offered off-campus at marine science center. Letter grading.
188SC. Individual Studies for USIE Facilitators. (2)
189. Advanced Honors Seminars. (1)
- letter grading.
dents. Honors content noted on transcript. P/NP or
signed as adjunct to upper-division lecture course. In
190. Research Colloquia in Ecology and Evolution
-ings, papers, or other activities. May be repeated for
Seminar, three hours.
193. Journal Club Seminars: Ecology and Evolu-
current literature in field of students' own research. Designed for juniors/seniors in research traineeships
and more than 4 units may be applied toward depart
mension of research pursuits in field and ques
198D or 199. Designed to encourage participation and
search group or internship. Discussion of use of spe

190. Research Colloquia in Ecology and Evolution

199. Directed Research in Ecology and Evolution

Graduate Courses

M200A. Evolutionary Biology. (4) (Same as Earth,
Planetary, and Space Sciences M216) Lecture, two hours;
discussion, two hours. Current concepts and topics in evolutionary biology, including microevolu-
tion, speciation, natural selection, analytical biol-
ography, adaptive radiation, mass extinction, com-
munity evolution, molecular evolution, and develop-
ment of evolutionary thought. S/U or letter grading.

M202B. Advanced Ichthyology. (4) Lecture,
two hours; laboratory, two hours. Requisite: course
110. Emphasis on functional approach to evolution of
vertebrate locomotor, feeding, and circulatory sys-
tems. Laboratory includes comparative and experi-
mental analyses of morphological adaptation. Inde-
pendent project required. May be repeated once for
credit. S/U or letter grading.

M203. Behavior of Arthropods. (4) Lecture, three
hours; discussion, one hour. Advanced study of topics in
behavior of terrestrial arthropods, including communica-
tion, feeding, reproductive, and social behavior. Em-
phasis on both mechanistic and adaptive approaches
toward understanding behavior. Independent project
required. S/U or letter grading.

M210. Advanced Ornithology. (4) Lecture, two
hours; laboratory, two hours; fieldwork, two hours. Requisite:
course 111A. Advanced study of topics in modern
avian biology. Emphasis on experimental approaches to
investigations of physiology (nutrition, osmoregulation),
ecology (population and community organization), and
behavior (foraging, breeding, soci-
ality). S/U or letter grading.

M217. Marine Ecology. (4) Lecture, four hours; discus-
sion, one hour. Designed for graduate students. Struc-
ture, diversity, and energetics of marine communities;
behavior, population dynamics, and biogeography of
component species; associated oceanography and
geology. Given off campus at marine science center.
S/U or letter grading.

M218. Oceanology. (4) Lecture, four hours; discus-
sion, one hour. Designed for graduate students. Emphasis
on physical oceanography and limnology; algal physi-
obiochemistry, physiological ecology, and algal
processes in ocean and freshwater habitats. S/U or
letter grading.

M219. Marine Invertebrate Biology. (4) Lecture,
four hours; laboratory, six hours. Functional morphology,
life histories, and systematics of marine invertebrates
of marine and estuarine habitats; emphasis on living
animal and its habitat. Given off campus at marine sci-
cence center. S/U or letter grading.

M226. Advanced Vertebrate Morphology. (4) Lecture,
two hours; laboratory, two hours. Requisite: course
E206. Advanced Ichthyology. (4) Lecture, two
hours; discussion, one hour. Designed for graduate stu-
dents. Structure, reproduction, life histories, and biol-
y of marine algae, with emphasis on physiological ecology
and biochemistry. Techniques in culture and physio-
logical, ecological, and biochemical investigation of
algae. Given off campus at marine science center.
S/U or letter grading.

M241. Advanced Biology of Algae. (4) Lecture, four
hours; discussion, one hour. Consideration of current
research in experimental phylogeny. Topics include
discussion of appropriate aspects of chemical and
physical oceanography and limnology; algal physi-
obiochemistry, physiological ecology, and algal
processes in ocean and freshwater habitats. S/U or
letter grading.

M247. Advanced Study of various aspects of fish biology. Theme varies from year to year. May be repeated
for credit. S/U or letter grading.

M249. Emphasis on functional approach to evolution of
vertebrate locomotor, feeding, and circulatory sys-
tems. Laboratory includes comparative and experi-
mental analyses of morphological adaptation. Inde-
pendent project required. May be repeated once for
credit. S/U or letter grading.

M254. Behavior of Arthropods. (4) Lecture, three
hours; discussion, one hour. Advanced study of topics in
behavior of terrestrial arthropods, including communica-
tion, feeding, reproductive, and social behavior. Em-
phasis on both mechanistic and adaptive approaches
toward understanding behavior. Independent project
required. S/U or letter grading.

M260. Advanced Ichthyology. (4) Lecture, two
hours; laboratory, two hours. Requisite: course
111B. Advanced study of topics in modern
avian biology. Emphasis on experimental approaches to
investigations of physiology (nutrition, osmoregulation),
ecology (population and community organization), and
behavior (foraging, breeding, soci-
ality). S/U or letter grading.

M261. Marine Ecology. (4) Lecture, four hours; discus-
sion, one hour. Designed for graduate students. Struc-
ture, diversity, and energetics of marine communities;
behavior, population dynamics, and biogeography of
component species; associated oceanography 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 Mathematics 3B
or 31A. Recommended: courses 100, 122, Life Sciences
1 or 7B, Mathematics 3C. Introduction to mod-
eling dynamics of ecological systems, including for-
mulation and analysis of mathematical models, basic techniques of scientific computing and stochastic modeling, and methods to relate models to
data. Examples from ecology but techniques and prin-
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 include model formulation, stochastic models, model-data fitting, sensitivity analysis, presentation of model results, and other topics from current literature. Concurrently scheduled with course C119B. 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 for students who intend to be academic researchers and want to learn about conservation in a way that can make research immediately relevant, and those who intend to be conservation practitioners and want to be exposed to cutting-edge theory and thinking to tackle today's complex conservation challenges. May be repeated for credit. S/U grading.


CM226. Earth Process and Evolutionary History. (4) Same as Earth, Planetary, and Space Sciences CM273.) Lecture, four hours; laboratory, two hours. 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 response. Limited to graduate students.

C228. Evolutionary Ecology and Conservation Genomics. (2) Lecture, two hours; discussion, one hour. Concurrently scheduled with course C174. S/U or letter grading.

233. UCLAPED Natural History Field Seminar: Conservation Genomics. (2) Lecture, two hours; discussion, one hour. Laboratory, two hours. Five-day field experience at La Kretz Center Field Station and Stunt Ranch in Santa Monica Mountains. Phylogeographic and Phylogenetic analyses of animal species have long had an intimate relationship and constitute one key application of evolutionary analysis to real-world biological problems. Impacts of population genetics, phylogenetics, and phylogeography have been particularly striking for conservation biology and have helped solve some of most pressing problems in biological conservation. Annual workshop to provide training environment for small group of motivated graduate students to explore how conservation problems can best be addressed with genomic-level data. Hands-on experience on efficient collection, trouble-shooting, and analysis for conservation-relevant problems. Active participation from members of several U.S. government agencies at forefront of endangered species protection and management, providing students insight into aspects of conservation genomics to managers. S/U grading.

C234. Practical Computing for Evolutionary Biologists and Ecologists. (4) Lecture, three hours; laboratory, two hours; requisites: Life Sciences 1 or 7B. Introduction to fundamental skills needed for manipulation, 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 C177. Letter grading.


C237. Communicating Science to Informal Audiences. (5) Lecture, three hours; discussion, one hour; laboratory or fieldwork, two hours. Requisite: one course from course 25, Atmospheric and Oceanic Sciences M10, Chemistry 2, 14A, 20A, Earth, Planetary, and Space Sciences 1, 15, Environment M10, Life Sciences 1, or 7B. Designed for seniors/juniors. Combined instruction in inquiry-based teaching methods and learning pedagogy, with six weeks of supervised teaching experience at Santa Monica Pier Aquarium. Students practice communicating scientific knowledge and receive mentoring on how to improve their presentations to develop ocean science literacy at all levels and to encourage broad public understanding of science and environmental stewardship. Need for young scientists to learn how to communicate about their science to audiences is especially critical when considering that Americans are expected to comprehend complex issues such as global climate change, with limited understanding of how natural world works. Concurrently scheduled with course C179. Letter grading.


C255. Seminar: Invertebrate Zoology. (2) Seminar, two hours. S/U or letter grading.

C259. Seminar: Herpetology. (2) Seminar, three hours. Seminar on current approaches to herpetology. Main text is a field guide to various areas such as biogeography, ecology, behavior, environmental physiology. S/U or letter grading.


C261. 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 marine systems. Letter grading.

C444. 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.

C247. Advanced Plant Biology. (4) Lecture, three hours; laboratory, five hours. Advanced topics in systematic biology, including methods development and specific applications in study of phylogeny. Themes vary from year to year. May be repeated for credit. S/U or letter grading.

263. 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: Structural 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 responses; sensory transduction; stomatal adaptations. S/U or letter grading.


270. Seminar: Environmental Physiology. (2) Seminar, two hours. S/U grading.


273. Seminar: Entomology. (2) Seminar, two hours. Discussion of specific topics in entomology and related fields. Main theme varies from year to year, but usually emphasizes areas such as behavior, ecology, and evolution. S/U grading.


276. 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. Designed for graduate students. Statistical solutions to complex data analysis and/or experimental design problems encountered by biology graduate students in their own research. S/U or letter grading.


M290. Seminar: Comparative Physiology. (2) (Same as Physiological Science 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, neurophysiology, or behavioral physiology. 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 Ecology and Evolutionary Biology. (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 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 Teaching Biology in Higher Education. (2) Seminar, to be arranged. Designed for graduate students. Study of problems and methodological issues 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 new skills. Study of methods and approaches to teaching of specific areas in biology, with emphasis on laboratory teaching, student interaction, and undergraduate motivation. S/U grading.


597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, 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) Tutorial, to be arranged. S/U grading.


ECONOMICS

College of Letters and Science

8283 Bunche Hall
Box 951477
Los Angeles, CA 90095-1477

Economics

310-825-1011

Jinyong Hahn, PhD, Chair
Ichiro Obara, PhD, Graduate Vice Chair
Kathleen M. McGarry, PhD, Undergraduate Vice Chair
Andrew G. Atkeson, PhD, Director, Business Economics

Faculty Roster

Professors

John W. Asker, PhD (Armen A. Alchian Professor of Economic Theory)
Andrew G. Atkeson, PhD (Stanley M. Zimmerman Endowed Professor of Economics and Finance)
Martha J. Bailey, PhD
Simon A. Board, PhD
Moshe Buchinsky, PhD
Ariel T. Burstein, PhD

Dora L. Costa, PhD (Kenneth L. Sokoloff Professor of Economic History)
Sebastian Edwards, PhD (Henry Ford II Professor of International Management)
Pablo D. Fajgelbaum, PhD (Duchansky Endowed Professor of Economics)

Jinyong Hahn, PhD
Gary D. Hansen, PhD
Hugo A. Hopenhayn, PhD
Oleg Itskikhoki, PhD (Venu and Ana Kotamraju Endowed Professor of Economics)
Adriana Lleras-Muney, PhD
Ross L. Matzkin, PhD (Charles E. Davidson Endowed Professor of Economics)
Kathleen M. McGarry, PhD
Moritz Meyer-ter-Vehn, PhD
Ichiro Obara, PhD
Lee E. Ohanian, PhD
Peter E. Rossi, PhD (James A. Collins Professor of Management)
Andres Santos, PhD
Aaron Tomell, PhD
Jonathan E. Vogel, PhD
Till M. von Wachter, PhD
Pierre-Olivier Weill, PhD
William R. Zame, PhD

Professors Emeriti

William R. Allen, PhD
Masanao Aoki, PhD
Costas Azarianis, PhD
Harold Demsetz, PhD
Bryan C. Elickson, PhD
Roger E. Farmer, PhD
Arnold C. Harberger, PhD
Benjamin Klein, PhD
Deepak K. Lal, DPhil (James S. Coleman Professor Emeritus of International Development Studies)
Naomi R. Lamoreaux, PhD
Axel S. Leijonhufvud, PhD
John J. McCall, PhD
Joseph M. Ostroy, PhD
John G. Riley, PhD
Finis R. Welch, PhD

Associate Professors

Dennis N. Chetverikov, PhD (Charles E. Davidson Endowed Term Professor of Economics)
Zhipeng Liao, PhD
Jai Y. Li, PhD
Maurizio Mazzocco, PhD
Sule Ozler, PhD

Assistant Professors

David R. Baarbee, PhD
Natalie D. Bau, PhD
Saki Bigio, PhD
François Geerolf, PhD
Michela Giorcelli, PhD
Ichiro Obara, PhD
Daniel Haanwinckel, PhD
Martin B. Hackmann, PhD
Juliana Londoño-Vélez, PhD
Rodrigo R.A. Pinto, PhD
Will Rafey, PhD
Michael Rubens, PhD
Tomasz M. Sadzik, PhD
Yotam Shem-Tov, PhD
Shuyang Sheng, PhD
Bernardo S. Silveira, PhD
Overview
The UCLA Department of Economics is one of the top-ranked departments in the world. Through their research, the young and active faculty shape policy and inform the public on critical issues affecting the U.S. and the world. The department’s work covers diverse topics such as the origins and persistence of the Great Depression and its lessons for today’s economy, the relationship between education and health outcomes, cartels and antitrust policy, the economics of health care, and the impact of immigration on labor markets. Many faculty have received special recognition for their body of research by election to prestigious institutions such as the National Academy of Science, the American Academy of Arts and Sciences, and the Econometric Society, or have received celebrated awards such as the Guggenheim and Sloan Fellowships.

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 Department of Economics undergraduate program is designed for students who wish to gain a thorough understanding of both empirical and theoretical approaches to economic phenomena. Emphasis is on economic principles applied to economic ideas and knowledge of how to use the Web in gathering reliable information.

• Application of economic analyses to everyday life, and visualization of economics in real-world situations
• Application of learning to policy-relevant issues
• Ability to understand current events
• Ability to assess the likely impact of specific policies put forth by government entities
• Evaluation of the role played by assumptions in arguments made for and against economic and policy issues
• Use of quantitative evidence and economic models to assess the validity of economic and policy-relevant arguments
• Understanding of statistical methodology and interpretation of statistical evidence
• Use of data to construct quantitative economics arguments, and to understand the statistical problems associated with interpreting the results
• Understanding of the role of sample selection/ endogeneity in affecting results, and how to correct for these issues
• Formulation of written arguments that state assumptions and hypotheses, and evaluation of their pros and cons based on evidence
• Oral presentation of a carefully reasoned economic argument, and response to related questions
• Graphic presentation of a carefully reasoned economic argument by means of graphs, figures, charts, and presentation software
• Working knowledge of information databases, and knowledge of how to use the Web in gathering reliable information

Admission
Application for the Economics major should be submitted to the department undergraduate counseling office in 2263 Bunche Hall or through 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.

Premajor
While students are completing the lower-division preparation for the major courses, they may be classified as Economics premajors.

Preparation for the Major
Required: Economics 1, 2, 11, 41; one Writing II course or English Composition 129B; Mathematics 31A, and 31B or 31E.

Policies
Each course must be taken for a letter grade. A 2.0 (C) grade is required in each premajor course. To enter the major, students must have a minimum 2.5 grade-point average in the economics and mathematics preparation courses and a GPA of at least 2.0 in any upper-division courses taken for the major before applying. Repetition of more than one preparation course or any preparation course more than once, including equivalent courses taken elsewhere, results in automatic denial of admission to the major.

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 premajor requirements within their first three registered terms at UCLA.

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.

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).

Policies
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. 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 at least a 2.0 grade-point average in their upper-division major courses, with grades of C– or better in Economics 101, 102, 103, 103L, 104, and 104L. A minimum grade of D or better is required in the six upper-division elective courses for the major.

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.

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

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 term in residence in regular session at UCLA, and all courses listed under preparation for the major. Applications are available on the undergraduate economics Moodle 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.

Premajor
While students are completing the preparation courses for the major, they may be classified as Business Economics premajors.

Transfer students who wish to enter UCLA as Business Economics premajors must meet the admission screening requirements. For information, contact Undergraduate Admission.

Preparation for the Major
Required: Economics 1, 2, 11, 41, 101; one Writing II course; Management 1A, 1B, Mathematics 31A, and 31B or 31E.

Policies
Each course must be taken for a letter grade.

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.

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 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.

The Major
Required: Economics 102, 103, 103L, 104, 104L, and at least two courses from the 106 series; English Composition 131B; five upper-division elective courses in economics and management (no more than three management courses from Management 108, 120A, 120B, 122, 123, 124, 126, 127A, 127B, 130A, 140 may be applied toward the elective requirement). In addition to Economics 103 and 103L, and 104 and 104L, at least two economics courses with laboratories must be completed and may be selected from either the Economics 106 series or an economics elective.

Policies
Each upper-division major course must be taken for a letter grade. Transfer credit for any of the major’s 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 in Economics 198A and 198B, and 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

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 allocation 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 requisites: 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 aggregative economics, including national income, monetary and fiscal policy, and international trade. P/NP or letter grading.

3A. Introduction to Investments. (2) Lecture, two hours. Broad introduction to investments. No previous financial, economic, or math background needed. 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 exchange rates, central banks, financial statements, value creation, interpreting financial ratios, understanding present value, diversification, 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. Broad introduction to investments. No previous financial, economic, or math background needed. 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, financial crises, and role private equity, venture capital, innovation and start-ups, personal financial advisers, exchange rates, central banks, financial statements, value creation, interpreting financial ratios, understanding present value, diversification, 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.

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 inequality, health care, and environmental policies. Students learn about available data sources and become better equipped to understand current events. May not be used to fulfill 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.

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: Mathematics 31A, 31B, with grades of C or better. Statistics 110A or 110B or Statistics 170A or 170B or 170D and 170S or Statistics 100A and 100B. Emphasizes probability concepts and statistical reasoning. Emphasis on applications with real data. P/NP or letter grading.

49. Honors Seminars. (1) Seminar, 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. May not be repeated for credit. May not be repeated for a maximum of 4 units. Individual honors contract required. 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


103. Introduction to Econometrics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 11, 19, and Mathematics 170A or 170B or 170D and 170S or Statistics 100A and 100B. Emphasizes economic and statistical reasoning, regression analysis, and economic applications. P/NP or letter grading.

104L. Data Science for Economists Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, and 41 and Mathematics 170A and 170B or 170D and 170S or Statistics 100A and 100B. Emphasizes Data Science for Economists. Use of econometric software. P/NP or letter grading.

104L. Data Science for Economists Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, and 41 and Mathematics 170A and 170B or 170D and 170S or Statistics 100A and 100B. Emphasizes Data Science for Economists. Use of econometric software. P/NP or letter grading.

104L. Data Science for Economists Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, 19, and 103. Emphasizes Data Science for Economists. Use of econometric software. P/NP or letter grading.

104L. Data Science for Economists Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, 19, and 103. Emphasizes Data Science for Economists. Use of econometric software. P/NP or letter grading.

104L. Data Science for Economists Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, 19, and 103. Emphasizes Data Science for Economists. Use of econometric software. P/NP or letter grading.

104L. Data Science for Economists Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, 19, and 103. Emphasizes Data Science for Economists. Use of econometric software. P/NP or letter grading.

104L. Data Science for Economists Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, 19, and 103. Emphasizes Data Science for Economists. Use of econometric software. P/NP or letter grading.

104L. Data Science for Economists Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, 19, and 103. Emphasizes Data Science for Economists. Use of econometric software. P/NP or letter grading.

104L. Data Science for Economists Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, 19, and 103. Emphasizes Data Science for Economists. Use of econometric software. P/NP or letter grading.
106AL. Economics in Practice Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 102. Enforced corequisite: course 106A. Lecture and laboratory require 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. Requisite: courses 11, 101. Enforced corequisite: course 106D. Discussed are markets and other institutions that were purposefully 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 and outcomes in such markets. P/NP or letter grading.

106DL. Designed Markets Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 106DL. Lecture and laboratory require students to apply material from course 106D to real-world problems regarding topics such as matching 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 106E. Enrollment priority to Business Economics majors. Application of economic theory to practice of managing new businesses—combining elements of strategy, marketing, and entrepreneurial finance courses. Examination of both strategic decisions of entrepreneurs (pricing, advertising, deterring entry) and more practical issues (funding, business plans, negotiation strategies).

106EL. Economics of Entrepreneurship Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 106EL. Enrollment priority to Business Economics majors. Application of economic theory to practice of managing new businesses—combining elements of strategy, marketing, and entrepreneurial finance courses. Examination of both strategic decisions of entrepreneurs (pricing, advertising, deterring entry) and more practical issues (funding, business plans, negotiation strategies).

106F. Finance. (4) Lecture, three hours. Requisite: course 102. Enforced corequisite: course 106FB. Not open for credit to students with credit for Management 130A. Topics from Economics 106F and Management 130A may be applied toward Economics and Business Economics majors. Enrollment priority to Business Economics majors. Introduction to principles of asset valuation and role of financial markets in a market economy. Basic topics include time value of money, discounted cash flow analysis, CAPM model, and applications to public policy. P/NP or letter grading.

106FB. Finance Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 102. Enforced corequisite: course 106FB. Case-based analysis requiring students to apply material from course 106F to real-world problems regarding topics such as discounted cash flow analysis, CAPM model, applications to public policy, and more. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

106G. Introduction to Game Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 101. Enforced corequisite: course 106GL. Introduction to the basic ideas of game theory and strategic thinking. Discussion of ideas such as dominance, backward induction, Nash equilibrium, commitment, credibility, asymmetric information, and signaling, with applications to examples from economics, business, and other real-life situations. Letter grading.

106GL. Introduction to Game Theory Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 106GL. Case-based analysis of topics from course 106G to real-world problems involving game theory and strategic thinking in economics, politics, business, and other real-life situations. Hands-on data collection and problem solving and presentation of student analyses in writing with possible oral presentations. P/NP or letter grading.


106IL. Organization of Firms Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: courses 11, 101. Case-based analysis requiring students to apply material from course 106I to real-world problems. Hands-on data collection and problem solving and presentation of student analyses in writing and with oral presentations. P/NP or letter grading.

106M. Financial Markets and Financial Institutions. (4) Lecture, three hours; laboratory, one hour. Requisite: courses 11, 101, 102. Enforced corequisite: course 106ML. 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 real-world phenomena and to understand when it is that further theoretical refinements are required to better account for certain observed patterns. Understanding the potential effects of monetary and regulatory policies on financial markets. Topics include bond market, stock market, foreign exchange market, financial crises, and financial regulations on dislocations of les- sons 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. Requisite: courses 11, 101, 102. Enforced corequisite: course 106ML. 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 real-world phenomena and to understand when it is that further theoretical refinements are required to better account for certain observed patterns. Understanding the potential effects of monetary and regulatory policies on financial markets. Topics include bond market, stock market, foreign exchange market, financial crises, and financial regulations on dislocations of lessons of subprime crisis and European sovereign debt crisis. P/NP or letter grading.


106PL. Pricing and Strategy Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 106PL. Case-based analysis requiring students to apply material from course 106P to real-world problems involving linear programming and shadow pricing, peak load pricing, two-part pricing, strategic pricing, and auctions and bidding. Hands-on data collection and problem solving and presentation of student analyses in writing. P/NP or letter grading.

106T. Economics of Technology and E-Commerce. (4) Lecture, three hours. Requisites: courses 11, 101, 102. Use of rigorous economic tools to apply material from course 106T to real-world problems involving issues such as bidding in online auctions, two-sided markets, matching mechanisms, and reputation mechanisms. Written case on one particular firm and presentation required. P/NP or letter grading.

106TL. Economics of Technology and E-Commerce Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: courses 11, 101, 102. Corequisite: course 106TL. Case-based analysis requiring students to apply theory from course 106T to real-world problems regarding issues such as bidding in online auctions, two-sided markets, matching mechanisms, reputation mechanisms, and more. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.


106VL. Investments Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 102. Recommended: course 106F. Enforced corequisite: course 106VL. Case-based analysis requiring students to apply theory from course 106V to real-world problems regarding issues such as portfolio management, option pricing, and other investment topics. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.


111. Theories of Development. (4) Lecture, three hours. Requisites: courses 11, 101, 103. Corequisite: course 111L. Application of theoretical and empirical tools from economics 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 111 to real-world problems involving development. Topics and analysis include measures of development, sources of economic growth and development, impediments to development, and policy prescriptions. P/NP or letter grading.


M112A. International Development. (4) (Same as Public Policy CM171.) Lecture, three hours. Requisite: course 102 or 111. Why are some countries rich, while other countries are poor? What can policymakers do to reduce poverty? Discussion of current research on these questions. Study of economic policies used to answer questions in development economics, like natural experiments and randomized control trials, as well as relationship between development and institutions, education, growth, culture, and gender. Reading inten-
3.90 / Economics

sive, 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. P/NP or letter grading.

113. Globalization and Gender. (4) Lecture, three hours. Requisite: course 11. Examination of gender dimensions of economic development and globalization from perspectives of feminist economics. This perspective implies foregrounding labor, broadly defined to include paid and unpaid work; examining gender differences in both economic and well-being outcomes; and how these are affected by macroeconomic policies and how gender inequalities are relevant for social policies. Students use theoretical frameworks to construct short-long portfolios of current policies and assess reward-risk trade-offs of such portfolios. To generate and evaluate forecasts, students trade use Simulation software to conduct Social Sciences Computing Laboratories. P/NP or letter grading.

121A-121B-121C. Internationalects: International Economics. (4) Lecture, three hours. Requisites: courses 11, 101, 102. Limited to second-year students. Introductions to advanced graduate students. Discussion of current developments in international economics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topics each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts. UCSC faculty and advanced graduate students. Concurrently scheduled with courses C015A-C015B-C015C. P/NP or letter grading.


130L. Public Economics Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Corequisite: course 121L. Not open to students with credit for former course 120. Emphasis on interpretation of balance of payments and adjustment to national and international equilibria through changes in price levels, exchange rates, and national income. Other topics include making international payments, determination of exchange rates under various monetary arrangements, capital movements, exchange rates, European monetary union, and international monetary policies. P/NP or letter grading.

122L. International Finance Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 102. Enforced corequisite: course 122L. Not open to students with credit for former course 120. Emphasis on interpretation of balance of payments and adjustment to national and international equilibria through changes in price levels, exchange rates, and national income. Other topics include making international payments, determination of exchange rates under various monetary arrangements, capital movements, exchange rates, European monetary union, and international monetary policies. P/NP or letter grading.

123. Forecasting Exchange Rates and Constructing Currency Portfolios. (4) Formerly numbered M123. Lecture, three hours; discussion, one hour. Requisites: courses 41, 102, 103, 103L, or consent of instructor. Enforced corequisite: course 123L. Study of main theoretical concepts of exchange rates and how to design computer codes to make real-time forecasting models. Applications of forecasting models to real-world data. Students write computer codes associated with concepts learned in Economics 123. Students use theoretical frameworks to construct short-long portfolios of current economic policies and assess reward-risk trade-offs of such portfolios. To generate and evaluate forecasts, students use Simulation software to conduct Social Sciences Computing Laboratories. P/NP or letter grading.

126A-126B-126C. Internationalects: International Economics. (4) Lecture, three hours. Requisites: courses 11, 101, 102. Limited to second-year students. Introductions to advanced graduate students. Discussion of current developments in international economics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topics each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts. UCSC faculty and advanced graduate students. Concurrently scheduled with courses C015A-C015B-C015C. P/NP or letter grading.


133. Intergenerational Poverty in America Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Corequisite: course 133L. Not open to students with credit for former course 120. Emphasis on interpretation of balance of payments and adjustment to national and international equilibria through changes in price levels, exchange rates, and national income. Other topics include making international payments, determination of exchange rates under various monetary arrangements, capital movements, exchange rates, European monetary union, and international monetary policies. P/NP or letter grading.


133. Intergenerational Poverty in America Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Corequisite: course 133L. Not open to students with credit for former course 120. Emphasis on interpretation of balance of payments and adjustment to national and international equilibria through changes in price levels, exchange rates, and national income. Other topics include making international payments, determination of exchange rates under various monetary arrangements, capital movements, exchange rates, European monetary union, and international monetary policies. P/NP or letter grading.


133. Intergenerational Poverty in America Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Corequisite: course 133L. Not open to students with credit for former course 120. Emphasis on interpretation of balance of payments and adjustment to national and international equilibria through changes in price levels, exchange rates, and national income. Other topics include making international payments, determination of exchange rates under various monetary arrangements, capital movements, exchange rates, European monetary union, and international monetary policies. P/NP or letter grading.


147. Computational Finance and Data Analysis for Financial Engineering Laboratory. (1) Lecture, one hour; laboratory, one hour. Required: courses 41, 101, 103. Enforced corequisite: course 147L. Introduction to econometric modeling in empirical/computational finance. Focus on study of economic models and methods to understand financial market dynamics. Review of essential concepts in probability/statistics and time-series econometrics, introduction of some popular financial economic models and estimation methods. Review of selected topics in finance, and how to apply econometric methods to analyze empirical properties of financial market data. Analytical problem sets and special topics focused on understanding and practical skills. P/NP or letter grading.

148. Behavioral Economics. (4) Lecture, three hours. Enforced requisite: course 101. Behavioral economics is emerging subfield of economics that incorporates insights from psychology and other social sciences into economics to improve realism of economic models. Focus on realistic features such as aversion for losses, problems with self control, or concerns for others and thereby improve economic analysis. Review of some standard assumptions made in economic models and collection of evidence on how human behavior systematically deviates from these assumptions. Investigation of attempts to explore alternative models of human decision making and assessment to what extent these alternative models help improve economic analyses. P/NP or letter grading.

150. Labor Economics. (4) Lecture, three hours. Required: courses 11, 101, 103. Enforced corequisite: course 150. Case-based analysis requiring students to apply theoretical tools from course 150 to real-world problems involving labor economics. Topics include labor supply decisions, household production decisions, life-cycle aspects of labor supply, short-run and long-run labor demand, monopsony in labor market, quasi-fixed labor costs and labor demand, human capital, and other extended topics. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

151. Topics in Labor Economics. (4) Lecture, three hours. Required: courses 101, 150. Selected topics in labor theory; income distribution; business cycles and unemployment; investments in human capital and lifecycle consumption; marriage and divorce, etc. P/NP or letter grading.

152. Women, Men, and Economy. (4) Lecture, three hours; discussion, one hour. Required: courses 11, 101, 103. Enforced corequisite: course 152L. Introduction to using tools of economics to understand gender-related issues. Review of economic models of household, fertility, and labor supply. Discussion of how they help improve models in marriage and divorcement, fertility, and children's labor-force participation. Review of economic models of wage determination, with focus on explanations of and policy remedies for earnings differences between women and men. Examination of new research in economics on gender-related topics. P/NP or letter grading.

152L. Women, Men, and Economy Laboratory. (1) Lecture, three hours; laboratory, one hour. Required: courses 11, 101, 103. Corequisite: course 152. Empirical-based analysis requiring students to apply theoretical and empirical tools from course 152 to real-world gender-related issues, and to further discuss latest research in field. P/NP or letter grading.

156A-C156B-C156C. Seminars: Labor Economics. (4–4) Seminar, three hours. Required: courses 11, 101, 102. Limited to seniors. Overview of most current developments in asset pricing theory for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topics 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 C268A-C268B-C268C. P/NP or letter grading.

160. Money and Banking. (4) Lecture, three hours. Required: courses 101, 103, 150L. Analysis of money and banking in U.S.; legal and institutional framework; money supply process; instruments; effects, and practice of monetary policy. P/NP or letter grading.

161. Monetary Theory. (4) Lecture, three hours. Required: courses 101, 103, 150L. Analysis of money and exchange; level and term structure of interest rates; level and growth rate of money; transmission of monetary shocks; theory and practice of monetary policy. P/NP or letter grading.


164L. Advanced Topics in Macroeconomics: Theory of Economic Growth Laboratory. (1) Lecture, one hour; laboratory, one hour. Required: course 102. Enforced corequisite: course 164. Case-based analysis requiring students to apply theory from course 164 to real-world macroeconomic growth problems. Hands-on data collection and problem solving and presentation of student analyses in writing. P/NP or letter grading.


165L. History of Capitalism in American Economy Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisite: course 102. Enforced corequisite: course 165L. Case-based analysis requiring students to apply theory and historical data from course 165 to solve case studies and analyze how variety of macroeconomic policies impact economic activity. Hands-on data collection and problem solving and presentation of student analyses in writing. P/NP or letter grading.

166A-C166B-C166C. Seminars: Monetary Economics/Macroeconomics. (4–4) Seminar, three hours. Required: course 102. Limited to seniors. Overview of most current developments in monetary economics and macroeconomics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topics 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 C226A-C226B-C226C. P/NP or letter grading.

167. Victims and Villains: Panics and Bubbles. (4) Lecture, three hours. Required: course 101, Management 1A, 1B (1A, 1B may be taken concurrently). Focus on phenomena of panics, bubbles, and manias in financial history. In-depth analysis and discussion of underlying causes, policy responses, similarities, and contemporary issues in today’s financial landscape. Focus on study of financial meltdown of 2008 with comprehensive treatment of the role and function of banking in the Foundation of an underlying housing and stock market bubbles. Also covers five other financial crises: panic of 1907, Great Depression, Japanese real estate and stock market bubble of 1980s, American sub-prime bubble, and Asian Contagion of late 1990s. Highlights various components of financial crises with case and discussion on each component. Students read case studies relating to each, and more general related readings including speeches, papers, and articles. Letter grading.

168. Introduction to Principles of Value Investing. (4) Lecture, three hours. Required: course 101, Management 1A, 1B (1A, 1B may be taken concurrently). Introduction to fundamental principles of value investing. Discussion of fundamental themes relating to value investing, and demonstration of how these ideas can be extended to non-classical approaches. Topics include differences between investment and speculation, how to search for inefficiencies in market, place, and importance of incorporating margin of safety in analysis. Includes study of accounting and valuation tools, including liquidity value. Prepares students to analyze and interpret financial statements. Designed for students considering careers in investment analysis, investment banking, consulting, and corporate finance. Letter grading.

169. Applied Value Investing. (4) Lecture, three hours. Required: courses 101, 168, Management 120A (may be taken concurrently). Extends the principles of introductory value investing class to more advanced and a wider variety of applications. Makes use of multiple case studies to enhance comprehension with real-world examples and to highlight necessary valuation skills that students need to master. Also covers market dynamics that can create opportunities to find structurally mispriced securities such as rights offerings, spin-offs, restructurings, and liquidations. Designed for students considering careers in investment analysis, investment banking, consulting, and corporate finance. Letter grading.

170. Industrial Organization: Theory and Tactics. (4) Lecture, three hours. Required: course 101. Enforced requisite: course 101 or 170. Empirical and theoretical analysis of how firms in oligopolistic and monopoly markets can compete in ways that maximize profits, including pricing and non-price competition. Focus on microeconomic competition between and among firms. Topics include oligopoly, collusion, strategic behavior, competition, competitive strategies, and various models of competition. P/NP or letter grading.

170L. Industrial Organization: Theory and Tactics Laboratory. (1) Lecture, one hour; laboratory, one hour. Required: course 101. Enforced corequisite: course 170. Case-based analysis requiring students to apply theory to real-world problems involving involving monopoly, collusion, strategic firm behavior, pricing practices, antitrust and other topics. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

171. Industrial Organization: Policy and Regulation. (4) Lecture, three hours. Required: course 101. Recommended requisite: course 103. Preparation: calculus. Designed to give foundation in topics within the field of industrial organization relating to regulation of monopoly power within economy and different way that manifests across firm conduct and industrial settings. Particular attention to topics such as industry organization with some exploration of intersection between economics and law. Topics include in-depth analysis of cartels and mergers, including abstract theory and
specifics of analytical approaches deployed in enforcement by Department of Justice and Federal Trade Commission. P/NP or letter grading.

173AX-173BX. Introduction to Social Entrepreneurship. (4-4) (Formerly numbered 173A-173B) Lecture, one hour; research group meeting, two hours. Course 173AX is designed to familiarize students with key concepts and knowledge and practical skills used in real world that complement traditional academicms to maximize interview, communication, and presentation skills and strengthen confidence and reserves of career pathways in business profession in various aspects to broader students' knowledge of career opportunities. Review of current business environment, financial markets, economics, and market research reports. P/NP or letter grading.

178A, 178B, 178C. Seminars: Economic History (C276A-C276B-C276C). Seminar, three hours. 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. In 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.


195C. Community and Corporate Internships in Economics. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Requisites: courses 11, 101. Limited to seniors or graduate students. Limited to social enterprises in Los Angeles area to implement world of social entrepreneurship. Introduction to basics of business planning for social enterprises. Students are assigned in teams to work with participating social enterprises in Los Angeles area to implement new revenue-generating business plan for social enterprises to which they are assigned. Teams receive support from students assigned volunteers as advisers on how to work effectively together and how to resolve issues that arise with staff of assigned social enterprise. Courses 173AX and 173BX must be taken in consecutive terms. In Progress (173AX) and P/NP or letter grading.

174. Economics of Sports. (4) Lecture, three hours. Enforced requisites: courses 11, 41, 101. Recommended: courses 103/103L. Course in applied microeconomics that employs both theoretical and empirical tools to analyze wide range of topics related to sports industry. Topics include history of labor relations in professional sports, history and analysis of player salaries and compensation, market for professional sports franchises and sports broadcast rights, league expansion and relocation decisions, understanding of role of economic impact studies (cost-benefit analysis) and public/private partnerships in facility financing, relationship between academics and athletes in collegiate sports, racial discrimination in sports, exploration of behavioral issues such as strategic effects on cost-sharing agreements in pro sports, and operational resources they need to implement social enterprise for which viable business plan has already been constructed. Students meet assigned or ready to launch social enterprise. Students work in teams alongside staff of local nonprofit organizations in 10-hour mentor required. P/NP grading.

176. Development of Economic Institutions in Western Europe Laboratory. (1) Lecture, three hours; laboratory, one hour; research, one hour. Requisites: courses 11, 103, 102. Overview of most current developments in industrial organization for advanced undergraduate and graduate students. Introduction to Western Europe. 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 C276A-C276B-C276C. P/NP or letter grading.


181L. Development of Economic Institutions in Western Europe Laboratory. (1) Lecture, three hours; laboratory, one hour. Requisite: courses 11, 103, 102. Overview of most current developments in industrial organization for advanced undergraduate and graduate students. Introduction to Western Europe. 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 C276A-C276B-C276C. P/NP or letter grading.


183. Development of Economic Institutions in U.S. (4) Lecture, three hours; tutorial, three hours. Enforced requisites: courses 11, 103. Corequisite: course 183L. Study of changing economic conditions in U.S. from Colonial times to early 20th century and effects of these changes on American society. 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. Study of changing economic conditions requiring students to apply material from course 183 to selected historical issues such as migration, slavery, industrialization, capital formation, Great Depression, human capital formation, and California development and relate them to current real-world issues. Hands-on data collection and problem solving and presentation of student analyses in writing. P/NP or letter grading.

183. Career Development. (1) Lecture, one hour. Enrollment prior to departmental majors. Designed to provide personal and career development workshops with key participants to enhance students' knowledge of career opportunities. Review of current business environment, financial markets, economics, and market research reports. P/NP or letter grading.

187. Upper-Division Research Seminars: Applications of Economic Theory. (4) Seminar, three hours. Requisites: courses 11, 101. Limited enrollment seminar in which students usually write research paper on topic selected in consultation with instructor. 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. ( Formerly numbered M188.) Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of resources they need to implement social enterprise for which viable business plan has already been constructed. Students meet assigned or ready to launch social enterprise. Students work in teams alongside staff of local nonprofit organizations in 10-hour mentor required. P/NP or letter grading.


188C. 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 885 course. Individual contract with faculty mentor required. May be repeated. Letter grading.

M188XP. Practicum in Social Entrepreneurship. (4) (Formerly numbered M188X) (Same as Community Engagement and Social Change 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 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 social enterprise for which viable business plan has already been constructed. Students meet assigned organization. Faculty mentor works with instructors of course and staff of nonprofit organization to develop tailored program of work for 10-week accelerator program. Students carry out work in conjunction with staff of selected organizations and with assistance of experienced entrepreneur volunteer mentors. 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.
Graduate Courses

Foundations of Economics


200B. Mathematical Methods in Economics II. (4) Lecture, three hours; laboratory, two hours. Continuation of work taken in conjunction with course 200A. Linear algebra and its application to linear difference equations. Basic real analysis, normed vector space/Banach space, Hahn-Banach theorem, Schauder fixed point theorem, and theory of correspondences. S/U grading.


201C. Game Theory with Asymmetric Information and Applications. (4) Lecture, three hours. Persistent Bayesian equilibrium and refinements, mechanism design. Applied topics such as adverse selection, signaling, moral hazard, bidding, price discrimination, and public good provision. S/U or letter 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. Estimation and testing. Basic linear regression model, tests of hypoth-

Economics Theory

211A. Contract Theory. (4) Lecture, three hours. Preparation: introductory probability. Enforced requisite: course 201C. Study of trading relationships between two or more agents. Cover a range of methods and techniques used in models of moral hazard, adverse selection, and incomplete contracting, starting with static models of moral hazard and mechanisms design and development of their dynamic counterparts. Consideration of environments where agents cannot use formal contracts, studying relational contracts. Analysis of wide variety of applications from industrial organization, corporate finance, personnel economics, and public economics. S/U or letter grading.

211B. Economics of Uncertainty, Information, and Games. (4) Lecture, three hours. Preparation: introductory probability. Enforced requisite: course 201C. Theory of individual decision making 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. Games of complete information, including rates of innovation, asset pricing, and financial economics. S/U or letter grading.

212A-212Z. Topics in Advanced Theory. (4 each) Lecture, three hours. Current research in microeconomic theory. Content varies. Courses in this sequence not ordinarily given every year. May be repeated for credit. S/U or letter grading.


213A-213B. General Equilibrium and Game Theory. (4—4) Lecture, three hours. Preparation: course 201C. Students requiring economics 405. Knowledge of empirical methods and basic calculus required. Interdisciplinary speakers series bringing together outside speakers with scholars and students from UCLA Law School and academic departments. Topics include contracts, torts, intellectual property, and business law. S/U or letter grading.


215. Topics in Applied Game Theory. (4) Seminar, 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. Games of complete information, including rates of innovation, asset pricing, and financial economics. S/U or letter grading.

216. Law and Economics Workshop. (2 or 3) Seminar, two hours. Preparation: course 201A or Management 405. Knowledge of empirical methods and basic calculus required. Interdisciplinary speakers series bringing together outside speakers with scholars and students from UCLA Law School and academic departments. Topics include contracts, torts, intellectual property, and business law. S/U or letter grading.

217. 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.


219. Political Science M208B.) Lecture, three hours. Preparation: introductory probability. Use of theory of Bayesian games to study bargaining, mone-

220. Economic Modeling. (4) Lecture, three hours. Development of modeling skills by considering sequence of economic issues (e.g., peak load pricing, regulation, monopoly, capital asset pricing, Pareto efficiency). Emphasis on graduate constrained optimization. S/U or letter grading.

221A-212Z. Topics in Econometric Methods. (4-4) Lecture, three hours. Preparation: course 201C. Credit and no credit option. S/U or letter grading.


224. General Equilibrium Theory. (4) Lecture, three hours. Preparation: course 201C. Core convergence theorem varies. Ordinarily only two courses in this sequence given every year. May be repeated for credit. S/U or letter grading.


227. Topics in Applied Game Theory. (4) Same as Political Science M208B.) Lecture, three hours. Preparation: introductory probability. Designed for graduate economics and political science students. Survey and applications of major solution concepts to models of banking, oligopoly, cost allocation, and voting power. S/U or letter grading.

Monetary Economics

221A–221D. Monetary Economics I to IV. (4 each) Lecture, three hours. 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 models of policy, inflation, implication 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 topics 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 one technique or suggests 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 pre-dissertation and dissertation writers. Overview of current developments in monetary and macroeconomics 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 C198A–C198B–C198C. S/U grading.

Econometrics

231A. Advanced Econometrics I. (4) Lecture, three hours. Econometric methods for microeconomic models. Topics include nonparametric estimation, limited dependent variable models, duration, panel data, tests of hypotheses. S/U or letter grading.

231B. Advanced Econometrics II. (4) Lecture, three hours. Econometric methods for empirical research in economics. Topics include simultaneous equations, instrumental variables, panel data, treatment effects, and point and partial identification, with applications in static and dynamic interactions, matching, and network formation. S/U or letter grading.

231C. Advanced Econometrics III. (4) Lecture, three hours. Advanced topics in econometrics that may vary year to year. Current topics include empirical process methods with applications to quantile regression and general M-estimation, estimation and inference methods in high-dimensional models, including LASSO and knockoffs. May be repeated for credit. S/U or letter grading.


Economic History

241. Economic History of Western Europe. (4) Lecture, three hours. Designed for graduate students. Seminar on European economic history, with emphasis on evolution of institutions and growth. Serfdom, medieval agriculture and agricultural revolution, demographics, industrial revolution, imperial expansion, and decline of Britain. S/U or letter grading.


C246A–C246B–C246C. Seminars: Economic History, (4–4–4) Seminar, three hours. Designed for pre-dissertation 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 critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C198A–C198B–C198C. S/U grading.

Public Finance

251A. Theory and Policy of Taxation. (4) Lecture, three hours. Examination of influence of taxation on economic efficiency and distribution. Topics change each year. Topics include tax equivalences, Ramsey rules, and alternative forms of taxation. Special tax provisions, tax incentives, and progressivity in taxation in second part of course. S/U or letter grading.

251B. Cost-Benefit Analysis of Public Projects and Programs. (4) Lecture, three hours. Requisite: course 251A. Presentation of tools and techniques 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.

252. Economics of Federalism. (4) Lecture, three hours. Theories of perfect games and social organization. Role of government, collective goods, collective defense, local public goods, spillovers, and intergovernmental relations. S/U or letter 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 examining labor force behavior and expectations. S/U or letter grading.

262A–262Z. Topics in Labor Economics. (4 each) Lecture, three hours. Current research in labor economics. Content varies. May be repeated for credit. S/U or letter grading.

262D. Development Economics. (4) Lecture, three hours. Preparation: completion of first-year graduate microeconomics and econometrics courses. Coverage of important key topics in microeconomics of advanced treatment.
development, such as health, education, risk-coping, savings, credit, and household economics. Discussion of empirical methods, 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 presentation of papers on urban economics by students, UCLA faculty members, and visitors. May be repeated for credit. S/U or letter grading.


C265A-C265B-C265C. Seminars: Labor Econom- ics, (4–4–4) Seminar, three hours. Designed for pre- dissertation and dissertation writers. Overview of most current developments in labor economics 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 C156A-C156B- C156C. S/U (C265B) and S/U or letter (C265A, C265C) grading.

C268A-C268B-C268C. Proseminars: Labor and Population, (4–4–4) Seminar, three hours. Quarterly seminars for pre- dissertation and dissertation writers working on empirical issues in areas of labor and popula- tion. Broadly defined. Presentation of work-in-prog- ress or background material for proposed thesis topics, to be discussed and critiqued by faculty and fellow students. Presentation or research paper required. S/U grading.


274A. Monetary and Financial Economics. (4) Lecture, three hours. Recent economic history of East Asia and emerging countries. Emphasis on role of international interac- tion between flows of capital, people, and goods. Application of models in general equilibrium for purposes of under- standing valuation of firms, and embedding of these models in general 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 financial economics, S/U or letter grading.

291B. Asset Pricing. (4) Lecture, three hours. Recent theoretical and empirical research on monetary policy. Includes intertemporal analysis as to how monetary policy is implemanted in practice. What are effects of different monetary policy tools, what restrictions on government monetary policy impose, transmission mechanisms of short-run policy toward costs of inflation, how does monetary policy interact with credit markets and how does it affect asset prices, S/U or letter grading.

292A-292B-C296C. Seminars: Asset Pricing. (4-4-4) Seminar, three hours. Designed for predissertation 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. Different topics 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 C146A-C146B-C146C. S/U (C296B) and S/U or letter (C296A, C296C) grading.

298A-298B-298C. Proseminars: Asset Pricing. (4-4-4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers on empirical issues in area of asset pricing, broadly defined. Presentation of work-in-progress or background material for proposed theses that are discussed and critiqued by faculty members and fellow students. Presentation or research paper required. S/U grading.

Teaching Practicum

375. Teaching Apprentice Practicum, to 4) Seminar, to be arranged. Preparation: appointment 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 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, competition, equilibrium, and two welfare theorems, constant returns to scale and comparison of supply, autonomy, uncertainty, and information and market design. Letter grading.

401B. Applied Economics. (4) Lecture, three hours. Limited to Master of Applied Economics students. How to be sophisticated users and producers of research on issues and policies in several core areas of labor, public, and health economics. Rigorous analyses of core policy questions with cutting-edge empirical analysis. Letter grading.

402A. Macroeconomic Theory. (4) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to graduate macroeconomics, including macroeconomic data, models of economic growth, supply and demand of factors of production, business cycle models, unemployment, monetary policy and inflation, and fiscal policy and deficits. Letter grading.

402B. Applied Macroeconomics. (4) Lecture, three hours. Limited to Master of Applied Economics students. Study of alternative theories of causes of unemployment and inflation, with focus on Keynesian approach to monetary and fiscal policy and modifications and extensions of Keynesian ideas designed to explain financial crises. Letter grading.

403A. Introduction to Statistical Methods and Econometrics. (4) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to probability, statistics, econometrics, and time-series 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.


404A. Writing and Presentation Skills for Economists I. (4) Seminar, three hours. Limited to Master of Applied Economics students. Designed to help students develop communication and presentation skills essential for professional effectiveness. Practice in writing economics documents for variety of professional audiences. Writing taught as process—brainstorming, collaborating, continually revising, and challenging. Prerequisite: Previous focus on presenting information clearly and organizing ideas, with emphasis on role of audience when presenting, because audience determines, style, tone, organization, research, and ideas. Grammar incorporated as needed, especially in regard to writing. Letter grading.

404B. Writing and Presentation Skills for Economists II. (4) Seminar, three hours. Limited to Master of Applied Economics students. Students learn to write documents in course 404A. Writing component to focus on summarizing, critiquing, and report writing. Process writing used and self-editing skills stressed. Presentations included. Letter grading.


406. Money and Banking. (4) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to models and data used to understand connection between asset prices, health of financial sector, and macroeconomy, including review of recent papers to gain introduction to questions being addressed on research frontier. Letter grading.


414. Incentives, Information, and Markets. (4) Lecture, three hours; discussion, one hour. 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, cutting-edge 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 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, cutting-edge empirical methods, and their relation to microeconomic theory. 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 analysis of international trade models, analysis of firms and heterogeneous producers, and economic geography topics. Case studies and empirical papers 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, effects of trade on inequality in developed countries and developing countries. 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, imputation, visualization, and mapping of data for downstream processing in analytics pipeline. Introduction of analytics subsystems and scalable storage and processing of very large and com-
plex 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. Preparation: basic understanding of microeconomics and the concepts of income inequality (with emphasis on U.S.), focusing on learning how to use models and data to quantify impact of range of forces on inequality. Overview of broad empirical evidence, and understanding how to document these facts ourselves. Consideration of three classes of potential explanations for these patterns: institutional, behavioral, and demographic factors. Topics include income inequality: why have extremely rich become much richer than very rich? Focus on CEO compensation. Letter grading.

425. Machine Learning I. (4) 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 supervised methods (e.g., support vector machine, neural network, etc.) and unsupervised methods (e.g., clustering, dimensionality reduction, etc.), and 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, association rules, supervised learning, clustering, etc., and their applications in visualization, social network analysis, and data analysis. Focus on making sense of large-scale or web-scale dataset, and providing students 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, linear algebra, and analysis. Fundamental course with primary application to data analytics. Intended to be accessible to students from backgrounds in science or mathematics, and students from less technical backgrounds. Covers some fundamental topics in machine learning such as Bayesian learning, optimization for learning, metric learning, 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. Focus on modern data management techniques 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 techniques of cloud storage systems, NoSQL databases, and map-reduce computing paradigm. Letter grading.


432. Data Science for Financial Engineering. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Data science provides tools for modeling financial data and testing hypotheses on how markets work, and prices are formed. Study of these important tools. Focus on econometric models and methods to understand and predict financial market returns. Topics include linear and non-linear models, time series methods 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.

433. Core Finance. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Focus on modern data management techniques 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 techniques of cloud storage systems, NoSQL databases, and map-reduce computing paradigm. Letter grading.

434. Machine Learning and Big Data for Economics. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Focus on modern data management techniques 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 techniques of cloud storage systems, NoSQL databases, and map-reduce computing paradigm. Letter grading.
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

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.

Premajor

Students entering UCLA directly from high school can select the Education and Social Transformation premajor on the UCLA admission application. Transfer students may select the major. See Transfer Students for details.

Students identified as Education and Social Transformation premajors may formally petition to declare the Education and Social Transformation major after completing the required lower-division courses and 45 lower-division units.

Current UCLA students must file an application in the Education Office of Student Services. All students are identified as Education and Social
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 completed one education, have at least sophomore standing with a minimum overall 2.3 (C+) grade-point average, and file an admission application with the Education Studies academic adviser in the Office of Student Services, 1002 Moore Hall. Students 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 completing their sophomore year are encouraged to apply.

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 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.

Graduate Majors
Doctor of Education
Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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.

Education MA, PhD
Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Special Education PhD
The Department of Education offers a Doctor of Philosophy (PhD) degree in Special Education jointly with California State University, Los Angeles.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Education

Lower-Division Courses

10. Introduction to Educational Issues and Schol- arship. (5) Lecture, two hours. Introduction to broad landscape of public education in the 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 recent problems facing 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; discussion, one hour. 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 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, contradictions, and complexities associated with carrying out these functions. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of 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.

35. Introduction to Inquiry and Research in Educa- tion. (5) Lecture, four hours; discussion, one hour. Introduction to empirical and analytical educational re- search. Intended for undergraduates interested in learning how to find, interpret, and evaluate educational research. Overview of different methods of con- ceptualizing inquiry and gathering evidence, including qualitative approaches (e.g., ethnographic, semi-structured interviews, case study), quantitative approaches (e.g., survey, measurement, experimental, descriptive), and mixed methods, and design-based re- search. Highlights multiple methods of inquiry and research, ethics of conducting research in social sciences, and planning and reporting re- search in field of education. Overview of selected strands of equity-oriented research in education. 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 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 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. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

92. Academic Success in Undergraduate Experi- ence. (2) Lecture, three hours. Open to first-year or transitioning students to promote understanding of factors involved in making adjust- ments to college experience, both academic and social. Letter grading.

98. Critical Issues in Education. (4) Seminar, 30 min- utes; laboratory, 30 minutes. Introduction to critical educational issues and approaches taken by re- searchers, policymakers, and education advocates as they respond to these issues. Laboratory portion of course engages students in small research groups where they acquire background on particular issue of interest, learn about social sciences research, and conduct mini-research projects. May be repeated for credit. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised reading 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 broad-based course. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

Histories and Philosophies

100. Introduction to Philosophy of Education. (5) Seminar, four hours. Introduction to major Western philosophical thoughts on education including Dewey, Freire, Freibelow, Locke, Montessori, Plato, Rousseau, and others. Examination of ultimate goals of educa- tion, content of education, and processes of teaching and learning according to these theorists and their in- fluences on later education practice. Assign- ments include readings, response papers, film analyses, educator interviews, document analysis (for their underlying educational philosophy), and proposal of educational philosophies.

C101. History of Higher Education. (5) Formerly numbered C124.) Lecture, three hours; discussion, one hour. Exploration of major eras in history of higher education. Topics include issues concerning access, diversity, parental involvement, teacher education, student power, and role of media. Concurrently scheduled with course C209A. Letter grading.

M102. Mexican Americans and Schools. (4) (Same as Chicana/o and Central American Studies M102.) Seminar, two hours; discussion. Theoret- ical and empirical overview of Chicana/Chicano educa- tional issues in U.S., with special emphasis on dis- entangling effects of race, gender, class, and immi- grant status on Chicana/Chicano educational attainment and achievement. Examination of how his- torical, social, political, and economic forces impact Chicana/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 disciplinary perspectives on American educa- tional experiences. Letter grading.

M104. Introduction to Arts Education for Multiple Publics: Theory and Practice. (4) (Same as Arts Ed- ucation M102.) Seminar, three hours; outside study, nine hours. Introductory course with focus on arts edu- cation for multiple publics in inner-city settings. Study of core issues in arts education, creativity, and social justice as students develop, implement, and as- sess 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.

104A. Introduction to Exceptional Learners. (4) (Formerly numbered 134.) Lecture, two hours; discus- sion, one hour. Study 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. Em- phasis on inclusive, integrative, and special education philosophies associated with it. Students learn perspec- tives from disability studies and engage in class activi- ties designed to promote inclusion/pull-inclusion into practice. Students develop understanding of var- ious educational programs and special educational emphasis on role of student special needs in con- text of general education. Letter grading.

105. Early Childhood Education and Policy. (5) Seminar, four hours. Overview of early care and edu- cation (ECE) landscape in U.S. and variety of policy systems used to provide care for young children. Con- sideration of possibilities and pitfalls of ECE as much hailed solution for educational inequality. Critical thought about how to use policy to provide young children with what they need to thrive. Letter grading.

106A. Education and Law. (5) Formerly numbered 139.) Seminar, four hours. Research seminar providing overview of high-profile legal issues in education and so- ciety. Examination of major case studies, including policy debates at both K-12 and higher edu- cation levels. Major areas of focus include campus safety, religion and schools, educational quality and accountability, special education and student opportuni- ty, and Internet-related issues and concerns. Letter grading.

106B. Lesbian, Gay, Bisexual, and Transgender Is- sues in Education and Law. (5) Lecture, four hours. Lesbian, gay, bisexual, and transgender-related controversies that arise in schools, colleges, and universities today and how they are being addressed by legal and education communi- ties. In particular, examination of real-life conse- quences of current laws and exploration of what might be done to make things better for all persons. Letter grading.

107A. Race, Class, and Education Inequality in U.S. (5) (Formerly numbered 130.) Lecture, two hours; dis- cussion, two hours. Focus extensively on under- standing educational experiences of following groups in U.S.: African Americans, Asian/Paci- fic Islanders, Chicanas/Chicanos/Latinas/Latinos, and low-income white Americans. Examination of how historical development of public education in U.S. has influenced its present form. Analysis of current issues and policy debates in education, including debate over school reform, bilingual education, and affirmative action. Letter grading.

107B. Race and Education: Access, Equity, and Achieve- ment. (5) (Formerly numbered 164.) Seminar, four hours. Social/psychological perspective on edu- cation, with particular attention to race, ethnicity, and inequality. Study of structural, social, and personal de- terminants of educational attainment, focusing on relationship of schools to social context and other so- cial institutions. Examination of how education sets life trajectory in America and effects of race/ethnicity on access to educational opportunity in our society. Letter grading.

M108. Sociology of Education. (5) (Same as So- ciology M175S.) Lecture, four hours; discussion, one hour. Study of how educational system both pro- motes socioeconomic opportunities and maintains so- cioeconomic inequalities: historical and theoretical perspectives on role of education in U.S. society; role of educational attainment in family background, class, race, and gender affect educa- tional attainment and achievement; stratification be- tween and within schools; effects of education on so- cioeconomic attainment, family background, attitudes, and social participation; educational policies to improve school quality and address socioeconomic inequali- ties. Letter grading.

109A. Globalization and Learning. (4) (Formerly numbered 129A.) Lecture, two hours; discussion, two hours. Introduction to different conceptualizations of globalization and their relationship to educational pro- cesses and learning in contemporary societies. Discus- sion of several current issues: how U.S. educational system lends itself as basis for approximating and understanding how dialectics of global and local are affecting educational sys- tems and learning over lifespans. Letter grading.

109B. Global Citizenship Education. (4) (Formerly numbered 132B.) Lecture, four hours. Exploration of issues of global citizenship in education and society as whole by analyzing critical challenges and envi- ronments, and related educational system. Emphasis on conceptual, empirical, and practical implementation of global citizenship education. Examination of how global citi- zenship education and education for sustainable de- velopment are beginning to impact life, actions, poli- cies, and practices of education, students, non-gov- ernment organizations, governments, multinational organizations, and other key players in local and global contexts. 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.
109C. Comparative Educational Policies and Practices, Seminar, four hours. Cross-national survey of educational policies and practices in delivery of educational services. Comparative perspective on national context defining institutional differences in policy and practices in developing and developed country contexts. Focus on examination of state of educational and socio-political, economic, and cultural factors that contribute to similarities and differences in institutional structures, organizational, and management functions, and on agenda for consideration of equality and access in deployment of resources for re-alization of inclusive quality education for all. Early childhood education, foundational education, post-secondary education (including university and non-university higher education, and adult education) as themes informing cross-national comparison of policies and practices in delivery of educational services. Letter grading.

110. Policy Analysis and Real Politics of Education. (Formerly numbered 162.) Lecture, two hours; discussion, two hours. Exploration of relationship between scholarly policy analysis and actual workings of policy and practice. Topics include achievement standards and assessment, school finance, equal access to education, and school reform. Letter grading.

C111. Politics of Education. (Formerly numbered C125.) Lecture, two hours; discussion, two hours. Political context and current institutional and organizational aspects of education. Relationships between education institutions and political institutions in society. Political theory as foundation for public policy analysis; interest groups in education and political institutions and their role in policy formation. Focus on Freireian pedagogy. Concurrently scheduled with course C207. P/NP or letter grading.

117. Road Trip: Exploring College Campus Cultures across U.S. (Seminar, four hours. Study of what other college campuses look like. One campus per day with two-hour visits to UCLA or other UC campus. 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 assignments that delve deeper into experiences of attending these special mission colleges and universities. Letter grading.

118. Sociology of Community Colleges. (Seminar, four hours. Focus on delivery and access to education. Course examines sociological foundations of research on community colleges and their missions (transfer, remediation/developmental, adult basic education, English as second language, workforce development, etc.), institutional dynamics and organizational culture, government and business impact, for-profit colleges, social media use among students and administrators, student support and community-building, and effective reform efforts. Letter grading.

119. Variable Topics in Histories and Philosophies of Education. (4 or 5 Seminar, four hours. Variable topics course organized around courses that introduce students to landscape of education within historical, theoretical, or philosophical context. Consult syllabus for specific topic. Six Schedule of Classes for topics and instructors. May not be repeated for credit. Letter grading.

Contexts of Teaching and Learning

120. Early Childhood Development. (Seminar, four hours. Development of positive social behaviors and their enhancement. Broad overview of children’s psychological development, with emphasis on personal, social, and emotional attributes of preschool and elementary school child. Aspects of prosocial behavior and aggression. Enhancement of prosocial behavior and modification of such negative behaviors as aggression. Review and evaluation of contemporary educational programs for promoting positive social behaviors in elementary schools. Methodological aspects of child development. Overview of early childhood education and issues related to role of family, school, and television in child development. Letter grading.

M121. Introduction to Media Literacies. (Same as Information Studies M121.) Seminar, four hours. Exploration of relationships between media, technology, and popular culture. Emphasis on analysis of media representations and process of normalizing dominant ideologies, and creating counter-hegemonic media 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 question power of word, image, and sound-bite to represent social and environmental injustice. Letter grading.

122. Literacy in Society. (Formerly numbered 118.) Lecture, four hours. Literacy plays significant role in cognition and language, political governance and law, and economic, social, and personal well-being. Exploration of these interactions and implications for teaching and learning. Exploration of literacy in workplace, healthcare, and community. Consideration of new literacies, intersectionality between literacy and social justice, and implications of literacy on income and opportunity. Letter grading.

123. Teaching Profession. (Seminar, four hours. Exploration of traditional and alternative teaching practices and public responses to teachers teaching and students learning. Focus on so-cioeconomic context and discussion of some philosophical questions that challenge teaching profession. Letter grading.

124. Theory and Practice of Intergroup Dialogue: Building Facilitation Skills. (4) (Formerly numbered C160.) Seminar, four hours. Topics include social psychology of intergroup relations, intercultural and dia-logic communication theories, 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 dialogue in multicultural settings. While providing foundational grounding in theory and pedagogy of intergroup dialogue, participants will be equipped with research-based theories, intervention strategies, and assessment tools to facilitate and measure the impact of diversity training and intergroup dialogue workshops on campus, in schools, and in local communities.

CM125XP. Narratives of Justice: Disrupting School-to-Prison Pipeline—Arts, Activism, and Agency. (Formerly numbered CM163.) (Same as African American Studies CM113XP.) Lecture, four hours; discussion, one hour. Exploration of policies and practices, art and activism, and other forms of agency engaging school-to-prison pipeline. Concurrently scheduled with course CM229B. P/NP or letter grading.

126. Language, Literacy, and Academic Development: Educational Considerations for School-Age Multilingual and English Language Learner Students. (Formerly numbered 168.) Seminar, five hours. Use of child-centered approach to examine in-structional strategies and assessment practices with preK-12 multilingual and English learner (EL) students who are learning academic content at the same time they are acquiring English as additional language and linguistic groups. Examination of common instructional strategies and language learning and development of EL students. Letter grading.

127. Educational Psychology. (Seminar, four hours; discussion, two hours. Broad overview of educational psychology, with examination of relationship of 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. Letter grading.

M129XP. Arts Education Undergraduate Practicum and Capstone Project. (Formerly numbered M190SL.) Same as Arts Education M192XP. Seminar, four to six hours. Exploration of current practicum, six hours. Enforced requisites: courses M104, M190. Limited to juniors/seniors. Continuation of arts education training and supervised practicum for advanced undergraduate students. Students continue to implement and evaluate original arts education programs under guidance of faculty members and design and implement two K-12 public school settings. May be repeated for credit with consent of instructor. P/NP or letter grading.

130AX. Institutional Apprenticeship in Teaching and Learning at UCLA Lab School. (Formerly numbered 196C.) Tutorial, 10 hours. Requisite: course 180. Limited to juniors/seniors. Not open for credit to students with credit for course 130BX or 130C. Training and supervised apprenticeship for advanced undergraduate students at UCLA Lab School (Corinne A. Seeds campus), K-6 elementary school on UCLA campus. Students gain understanding of innovative educational work that takes place at Lab School and opportunities for students with credit for course 130AX or 130BX at UCLA Lab School through seminars, readings, observations, and discussions. Individual meetings with faculty mentor throughout term. Letter grading.

130BX. Institutional Apprenticeship in Teaching and Learning at UCLA Lab School. (Formerly numbered 196D.) Tutorial, 10 hours. Requisite: course 180. Limited to juniors/seniors. Not open for credit to students with credit for course 130AX or 130C. Exploration of K-12 teaching profession through training and supervised off-campus experiences at UCLA partner schools. Students gain grounded understanding of social issues in education through readings, observations, direct support in classrooms, and tutoring activities. Individual meetings with faculty mentor throughout term. Letter grading.

130CX. Institutional Apprenticeship in Teaching and Learning at UCLA Community Schools. (4) Tutorial, 10 hours. Requisite: course 180. Not open for credit to students with credit for course 130AX or 130BX. Examination of how UCLA partners with Los Angeles Unified District (LAUSD) to educate, engage, empower, and serve students and families through UCLA Community Schools. Students gain grounded understanding of social issues in education through readings, observations, direct support in classrooms, and tutoring activities. Letter grading.

M131A. Language, Literacy, and Human Development Research Group Seminars. (Formerly numbered M194AA.) Same as African American Studies M194A. Seminar, three hours; laboratory, two hours (when scheduled). Requisite: course 180. Research seminars designed to provide opportunities 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.

M131B. Culture, Gender, and Human Development Research Group Seminars. (Formerly numbered M194B.) Same as African American Studies M194B. Seminar, three hours; laboratory, two hours (when scheduled). Requisite: course 180. Research seminars designed to provide opportunities 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.
Lec
132. Autism: Mind, Brain, and Education. (5) Lecture, two hours; discussion, two hours. Study of autism spectrum disorders (ASD) and related disabilities. Discussion of the etiology of ASD, challenges for diagnosis and treatment, and exploration of impact of children with ASD on families. Limited number of independent ob- servations of individuals in community required. Letter grading.

Lec
133. Topics in Child Development and Social Poli- cies. (5) 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 policy landscape in several major domains of child and family life in U.S. and other countries, and use scientific research on children’s cognitive and social development to evaluate and understand implications of social and economic policies. Letter grading.

134. Early Childhood Mathematics Education. (5) Seminar, two hours; fieldwork, two hours. Focus on how research in early childhood mathematics can be used to engage young people in learning mathematics. Study addresses research on how young children learn mathematics, teaching preschool mathematics, and policy context that shapes student opportuni- ties. Emphasis on fieldwork at local preschool site working with students in mathematics. Letter grading.


M134. Early Childhood Mathematics Education. (5) Lecture, four hours; discussion, two hours. Examination of ways in which public policies are established and implemented, learn about policy landscape in several major domains of child and family life in U.S. and other countries, and use scientific research on children’s cognitive and social development to evaluate and understand implications of social and economic policies. Letter grading.

135. Educational Sociology through Lens of Media Education. (5) Same as Information Studies M135.) Seminar, four hours. Exploration of human re- lationships 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 chal- lenge—neoliberal policies, and unsustainable practices. Letter grading.

M136. Working Families and Educational Inequali- ties in Urban Schools. (4) (Same as Labor Studies M136.) Seminar, four hours. Exploration of complex relationship between working-class and poor communities and inequalities in American urban schools. Drawing on multiple disciplinary frameworks to 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 un- derstand notion of inequality, access to quality public education, and how race, ethnicity, and class affect school experiences for working-class and poor com- munities. Look at research on working-class and minority learning opportunities to examine systems, struc- tures, and everyday practices that sustain and repro- duce inequality and policies that intend to remedy education inequalities in urban schools. Opportunity to investigate issues of working-class families and in- equalities as they relate to students’ own communities and experiences, P/NP or letter grading.

137. Critical Digital Media Literacies. (4) Lecture, four hours. Relational ties to digital media and information society and explore how media and information communication technologies are im- proving society, strengthening democracy, and opening up new possibilities for challenging hegemony and promoting social transformation. Problematization of social media and questioning of ways it is being used to surveil, capture data, spread hate, mislead, distract, and normalize lies. Students engage in decon- lize media representations, question process of norm- alizing dominant ideologies, and create counter-he- gemonic media messages. Combines theoretical foundations of cultural studies and critical pedagogy with practical applications of new digital media and technology, as well as traditional print-based means of communication. Exploration of media representations of race, class, gender, sexual orientation, and other identity markers of its analysis 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 cogni- tive development and implications of this work for edu- cational practice. Covers range of research from dif- ferent perspectives, drawing from domains such as developmental psychology, cognitive psychology, de- velopmental neuropsychology, social psychology, and education. Students learn about basic cognitive processes. Ex- ploration of ways in which contexts—including those at home, early-care settings, and school—impact chil- dren’s development. Letter grading.

139. Social Context of Learners in K-12: Diversity, Residential Mobility, Immigration, and Food Secu- rity Conditions in California. (5) Seminar, four hours. Examination of contexts in which children are located and how research in early childhood education, family, and community settings offers points of comparison with respect to stu- dent demographic and geospatial experience across categories explored. Examination of potential impact of differential burden of inequality and disparity in re- source opportunity on student learning and learning outcomes. Letter grading.

140. Educational Perspectives of Relational Prac- tices in Modern Medicine. (5) Seminar, four hours. Systematic discussion of personhood and body con- cepts, in context of asymmetric person-to-person re- lationships 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 making sense of world we inhabit, and stance on who we are and activities at hand in ev- eryday practices. Approach main- tains focus on how things show up; what affordances emerge in activities and practices; and how we com- port toward them making sense of, 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 develop- ment, including physical, social, cognitive, and emo- tional during second decade of life. Topics may in- clude pubertal development, adolescent brain devel- opment, family, friend, peer, and intimate relationships, social identity and intergroup relations, school, work, and civic engagement. Development of critical concepts and methods. Highlighting and evalua- tion of three core concepts of assessment: reliability, validity, and fairness. Students develop ability to criti- cally assess and understand how political and historical and social processes (e.g., race and gender) in- fluence education. Regression is commonly used to an- alyze relationships between one variable on another. Using regression appropriately requires thoughtfulness about what kinds of relationships are drawn from research evidence: notions of in- ternal validity, statistical validity, construct validity, and external validity. Statistical validity requires basic flu- macy with quantitative data analysis, which students learn using statistical software R. Analysis of how values and beliefs shape quantitative education research and how research findings get translated when tested in real-world settings are reported for policy making. Quantitative background is not required. Letter grading.

151. Quantitative Research in Education: Measure- ment and Assessment. (5) Lecture, four hours; dis- cussion, one hour. Focus on learning how to design, piloting, and grade of C or better. Intended for students who are in- terested in better understanding what makes good tests and how to critically interpret and evaluate tests and test scores in educational research; introduction to measurement, testing, and assessment in educa- tional settings. Overview of foundational concepts, methods, issues, and practices of educational meas-urement and assessment. Overview of basic statistical concepts and methods. Highlighting and evaluation of three core concepts of assessment: reliability, validity, and fairness. Students develop ability to criti- cally assess and understand how political and historical and social processes (e.g., race and gender) in- fluence education. Regression is commonly used to an- alyze relationships between one variable on another. Using regression appropriately requires thoughtfulness about what kinds of relationships are drawn from research evidence: notions of in- ternal validity, statistical validity, construct validity, and external validity. Statistical validity requires basic flu- macy with quantitative data analysis, which students learn using statistical software R. Analysis of how values and beliefs shape quantitative education research and how research findings get translated when tested in real-world settings are reported for policy making. Quantitative background is not required. Letter grading.

152. Quantitative Research in Education: Regres- sion Analysis. (5) Lecture, two hours; discussion, two hours. Focus on learning how to design, piloting, and grade of C or better. Intended for students who are in- terested in better understanding what makes good tests and how to critically interpret and evaluate tests and test scores in educational research; introduction to measurement, testing, and assessment in educa- tional settings. Overview of foundational concepts, methods, issues, and practices of educational meas-urement and assessment. Overview of basic statistical concepts and methods. Highlighting and evaluation of three core concepts of assessment: reliability, validity, and fairness. Students develop ability to criti- cally assess and understand how political and historical and social processes (e.g., race and gender) in- fluence education. Regression is commonly used to an- alyze relationships between one variable on another. Using regression appropriately requires thoughtfulness about what kinds of relationships are drawn from research evidence: notions of in- ternal validity, statistical validity, construct validity, and external validity. Statistical validity requires basic flu- macy with quantitative data analysis, which students learn using statistical software R. Analysis of how values and beliefs shape quantitative education research and how research findings get translated when tested in real-world settings are reported for policy making. Quantitative background is not required. Letter grading.

144. Pedagogies of Global Citizenship Education. (4) Formerly numbered 152D.) Lecture, four hours. Questions regarding nature and possibility of educa- tion that can foster global citizenship necessary to un- derstand and resolve world’s most pressing issues. Focus on how curriculum and instruction can help us learn as well as sociocultural contexts that shape teaching and learning. Consult Schedule of Classes for topics and instructors. May not be repeated for credit. Letter grading.

Inquiry and Design

150. Quantitative Research in Education: Claims and Evidence. (5) Lecture, two hours; discussion, two hours. Requisite: course 35. Introduction to four con- trasting tools used to evaluate research conclusions drawn from research evidence: notions of internal validity, statistical validity, construct validity, and external validity. Statistical validity requires basic flu- macy with quantitative data analysis, which students learn using statistical software R. Analysis of how values and beliefs shape quantitative education research and how research findings get translated when tested in real-world settings are reported for policy making. Quantitative background is not required. Letter grading.

153. Qualitative Research in Education: Measure- ment and Assessment. (5) Lecture, four hours; dis- cussion, one hour. Focus on learning how to design, piloting, and 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 test scores in educational research; introduction to measurement, testing, and assessment in educational settings. Overview of foundational concepts, methods, issues, and practices of educational measurement and assessment. Overview of basic statistical concepts and methods. Highlighting and evaluation of three core concepts of assessment: reliability, validity, and fairness. Students develop ability to critically assess and understand how political and historical and social processes (e.g., race and gender) influence education. Regression is commonly used to analyze relationships between one variable on another. Using regression appropriately requires thoughtfulness about what kinds of relationships are drawn from research evidence: notions of internal validity, statistical validity, construct validity, and external validity. Statistical validity requires basic fluency with quantitative data analysis, which students learn using statistical software R. Analysis of how values and beliefs shape quantitative education research and how research findings get translated when tested in real-world settings are reported for policy making. Quantitative background is not required. Letter grading.
to understand educational possibilities. Introduction to epistemological, theoretical, ethical, and political foundations of conducting qualitative research in education. Students become familiar with breadth and scope of qualitative research. Theoretically-grounded, practice-oriented introduction that teaches students how qualitative researchers work individually and in teams to design studies that may ultimately support movement toward educational and social change. Assignments guide students in the generative research process, which includes conducting needs assessment using qualitative data collection tools, making sense of pilot data, and negotiating research plans with stakeholders. Letter grading.

157. Qualitative Research in Education: Ethnography. (5) Seminar, four hours. Requisite: course 35. Examination of debates and dilemmas of conducting ethnographic research. Students develop skills important for qualitative research. Survey of research methodologies and methods (observations and interviews) in ethnography of education research. With consideration to issues of race/ethnicity, gender, sexual orientation, class, language, and immigration status, study guided by central question of how ethnography can inform efforts to create more socially-just educational systems and spaces of learning. Students develop skills important for qualitative research. Letter grading.

159. Educational Research and Equity in Informal Learning: Collaboration between Hammer Museum and UCLA Education. (5) Seminar, three hours. Requisite: course 35. Through collaboration with Hammer Museum, introduction to importance of informal learning contexts, specifically in art museums, and value of conducting educational research within art museums. hammer is an equity leader in arts inquiry and exploration. Study of art museum pedagogies and philosophies. Reflection on art museum responsibility to support positive learning experiences for diverse students and local communities. Exploration of Research-Practice Partnerships education research approach that can support art museums in understanding problems of practice and questions of interest to diverse students and local communities. Students explore issues related to use of technology in classrooms, and scope of learning possibilities. Letter grading.

160. Transformative Research in Community-Based Settings. (5) (Formerly numbered 188A.) Lecture, four hours; fieldwork, one hour. Requisite: course 35. Stages and methods for conducting transformative research in education—public scholarship that aims to disrupt long-standing educational inequalities in partnership with local 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 opportunities, students are supported to develop ability to analyze education in social and political context, develop skills for effect change, demonstrate understanding of multiple perspectives, diversity, pluralism, and social justice. Letter grading.

165. Educational Program Evaluation. (5) (Formerly numbered 139.) Seminar, four hours. Requisite: course 35. Strategies for conducting evaluation 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 or 5) Seminar, four hours. Requisite: course 35. Variable topics course organized around courses that teach students how to read and communicate about research. Consult Schedule of Classes for topics and instructors. May not be repeated for credit. Letter grading.

Electives

170. Exploration of Topics in Education. (2) (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 learning settings, including libraries and schools. P/NP grading.

171. Community Service Learning for Academic Achievement. (4) (Formerly numbered 185.) Lecture, two hours; discussion, two hours. Emphasis on cognitive learning activities and their relevance to strategies for developing curricular instructional techniques and training that contribute to tutoring, counseling, and other instructional assistance in various school and other community settings. Letter grading.

172. Activism through Community Service. (5) Seminar, four hours. Exploration of impact and activism 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 minority 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 other UCLA community service organization to provide critiques and solutions to issues they are combating in their respective projects. Letter grading.

173. Dialog across Difference. (4) Seminar, three hours. Offers safe and inviting space to engage in open, constructive discourse on issues related to social identities, such as race/ethnicity, socio-economic class, and sexual orientation. Students learn from 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 pertaining to various social and political contexts, and work to help create social change. Letter grading.

174A. Experiential Learning in Secondary Classrooms: Health. (4) (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-related aspects of the Secondary Credential Program requirements from the California Commission on Teacher Credentialing. Experts in field lead discussion of issues related to physical and mental health of students in secondary classrooms. Students examine theories and practices that engage diverse groups of students in classrooms. Active engagement in reflection on issues in schools in which students work. Letter grading.

174B. Experiential Learning in Secondary Classrooms: Law. (2) (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 7th- 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 students in classrooms. Active engagement in reflection on issues in schools in which students work. Letter grading.

174C. Experiential Learning in Secondary Classrooms: Technology. (2) (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 diverse 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. (4) Seminar, three hours. Introduction to central issues at nexus of education, sports, entrepreneurship, and diversity. Examination and investigation of recent innovations in education, sports, and entrepreneurship that promise greater representation, equity, and inclusion of marginalized groups. Examination of media role in framing perceptions and attitudes, and its educational implications. Discussion of emerging pedagogies and forms of college and professional sports. Examination of innovations in education, sports, leadership, and entertainment that promote greater diversity. Examination of these and other related theories and relevant issues, modern research literature, and document. Letter grading.

175B. Educational Leadership and Diversity in Sports: Equity, Access, and Future Prospects. (4) Seminar, three hours. Examination of how leadership of sport, especially within intercollegiate athletics, impacts higher education, businesses, and other related organizations at macro and micro levels. 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 that cultivate diversity of student athletes, women, and people of color to positively articulate in terms of social mobility. Approach to evaluating success of various organizations with diverse leadership and participation, and focus on both qualitative and quantitative measures. Letter grading.

175C. Education, Hip-Hop Culture, and Sport. (4) Lecture, three hours. Exploration of intersection of hip-hop culture, sport, and education, and how hip-hop culture shapes contemporary educational realities in terms of student, teacher, and public understandings of relevant pedagogy in K-12 education, higher education, and informal learning contexts. Exploration of development and rise of hip-hop from underground medium to dominant culture, 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 culture can inform development of social identities and cultural learnings in traditional and non-traditional 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 pedagogies and learning experiences. Letter grading.

175D. Education of Contemporary Athletes: Leadership Issues and Professional Sport. (3) Lecture, three hours. Introduction to educational and business themes surrounding leadership in athletics. Emphasis on requisite experiences, knowledge, skills, set, and attributes that characterize leaders in sport team operations; and how this impacts educational experiences of athletes. Study dissects current (mis)perceptions related to careers as general managers or sport agents, and supplies students with actionable plans for career development and advancement. Students learn about potential educational and career impact of impending and passed legislation 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. (5) (Formerly numbered 188B.) Lecture, four hours; fieldwork, one hour. Requisite: course 35. Introduction to broad tradition of transformative research in education—public scholarship that aims to disrupt long-standing educational inequalities in partnership with local 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 opportunities, students are supported to develop ability to analyze education in social and political context, develop skills for effect change, demonstrate understanding of multiple perspectives, diversity, pluralism, and social justice. Letter grading.
M177. Creating Safe and Welcoming Schools. (4) (Same as Public Affairs M125.) Lecture, three hours. 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 student and teacher well-being. Limited to juniors. Open only to students participating in the Student Engagement in the Prevention of School Violence Project. S/U or letter grading.

CM178. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (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 to understand shifting power relations in mass media, film, expert culture, and online youth culture and how politics shape these shifting power relations. Limited to juniors. Open only to students participating in the Student Engagement in the Prevention of School Violence Project. S/U or letter grading.

CM178L. Critical Media Literacy and Politics of Gender: Laboratory. (2) (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 CM278. Letter grading.

Required Courses

180. Orientation to Community Engagement. (4) Seminar, four hours. First course in three-part series to satisfy community engagement requirement for Education and Sociology major or concurrent major-community 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' own community engagement experiences in community organizations, early childhood centers, or schools in Los Angeles, emphasis on reflecting on positionality, identifying forms of power and privilege, and understanding relationships between systemic issues and community engagement. Letter grading.

181. Capstone in Education and Social Transformation. (5) Seminar, four hours. Third course in required capstone sequence 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 compile 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 community engagement experience contributed to their fulfillment of learning outcomes, and plans for future. Students complete compelling final public presentation of their portfolio. Letter grading.

187. Variable Topics in Education. (5) Seminar, five hours; discussion; two hours. Limited to juniors/seniors. Variable topics course organized around disciplinary knowledge central to development of core understandings of educational and learning processes, phenomenology, 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.


188B. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: USIE Studies CM178L. 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. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: USIE Studies CM178L. 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.

188S. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: USIE Studies CM178L. 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-191D. Current Issues in Education. (4 each) Seminar, four hours. Limited to juniors/seniors. Variable topics course organized on selected current issues basis, integrating field observations and readings through seminar discussions. 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, three hours. Required: course C160. Application and further development of content and skills learned in course C160. In addition to co-facilitating weekly dialogues, students are expected to participate in weekly teaching apprentice practice seminars. Readings, group discussions, and one-on-one meetings with assigned coach. Fosters supportive learning environment where each student facilitator can gain more insight and knowledge into skills of dialogue. These include process of self-reflection and critical inquiry of one's identities, biases, beliefs, and perspectives. Includes learning as large group and time to receive individualized consultation, individual contracts required. S/U or letter grading.

195. Community Internships in Education. (4) Tutorial, one hour; fieldwork, eight to 10 hours. Internship in K-16 schools or community to be supervised by Center for Community Learning and faculty sponsor. Students meet biweekly with teaching assistant, write reflective journals, and prepare final paper. May be repeated for credit. Individual contract with supervising faculty member required. Letter grading.

195CE. Community or Corporate Internships in Education. (4) Tutorial, one hour; fieldwork, eight to 10 hours. Required: course C180. Limited to juniors/seniors. Internship is an approved K-12 settings coordinated through Center for Community Engagement. Students meet on regular basis with faculty sponsor or designee to construct series of reading and writing assignments in relation to educational issues related to meaningful work at internship site. Students expected to learn ways in which urban schools are structured, organized, and operate. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

196R. Research Apprenticeship in Education. (2 to 4) Tutorial, three hours per week per unit. 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.

197. Individual Studies in Education. (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 Education. (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

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 research and in report or paper or thesis writing, regardless of their field of interest. S/U or letter grading.


M201C. History of American Education. (4) Lecture, three hours. History of educational thought and of social forces impinging on American education from 1880 to present. Analysis of relation between these ideas and forces, and aims and practices of American education today. S/U or letter grading.


204A. Introduction to Education and Social Sciences. (4) Lecture, four hours. Interdisciplinary course intended to introduce students to study of educational issues, texts, and movements of thought through social sciences and comparative perspectives. S/U or letter grading.

204B. Introduction to Comparative Education. (4) Lecture, four hours. Examination of conceptual and methodological questions for understanding comparative education. Particular attention to development of field and to styles of social analysis that may be applied to comparative and cross-national studies in education. 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, Marxism, neo-Marxism, 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.

204D. 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. Introduction to cross-cultural education in representative countries in relation to social, political, and economic systems. S/U or letter grading.

204E. International Efforts in Education. (4) Lecture, four hours. Designed for graduate students. Critical analysis of complex world of development cooperation, with particular reference to bilateral and multilateral efforts in education. S/U or letter grading.
204F. Nonformal Education in Comparative Perspective. (4) Lecture, four hours. Comparative and international study of organized and systematic educational activity for children, youth, and adults carried on outside of schools. Types of programs include, among others, adult education, extension, orientation, action skills training, literacy, and extension programs. S/U or letter grading.

206A. Philosophy of Education: Introduction. (4) Lecture, four hours. Systematic introduction to field, indicating ways in which philosophy serves to elucidate educational aims, content, methods, and values. S/U or letter grading.

207P. Politics of Education. (5) Lecture, two hours; discussion, one hour. Historical 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 formulation and implementation; and focus on Freirean pedagogy. Concurrently scheduled with course C111. S/U or letter grading.

208A. Perspectives on Sociology of Education. (4) Lecture, four hours. Sociological perspectives on current issues in educational policy and practice, including desegregation, decentralization, equality of educational opportunity, structural education organization, organizational relationships, reform in education at elementary, secondary, postsecondary levels. S/U or letter grading.

208B. (Immigrant Youth, Ethnicity, and Education. (4) 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.

209A. History of Higher Education. (5) 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 role of popular movements. Concurrently scheduled with course C101. S/U or letter grading.

209C. 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, survey design, data analysis, assessment issues, and research proposal writing. Letter grading.

211A. Educational and Psychological Measurement: Underlying Theory and Practice. (4) Lecture, four hours; discussion, one hour. Measurement theory as applied to educational and psychological testing, with focus primarily on classical test theory, reliability estimation, and test construction and selection. S/U or letter grading.


212A. Learning and Education. (4) Lecture, four hours. Models of learning, modeling, reinforcement, motivation, encoding, memory, transfer, individual differences, and other relevant statistical methods. S/U or letter grading.

212B. Motivation and Affect in Educational Process. (4) Lecture, four hours. Review of theoretical and empirical literature on motivational factors in school settings and conditions for acquisition of affective outcomes. S/U or letter grading.

217A. Social Development and Education. (4) Seminar, four hours. Biological and familial, school, and other influences on children; development in context of current social, psychological, and theoretical models; communication 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 in cognitive development, with focus on work of Piaget and Vygotsky, and relation of this work to issues in educational practice. S/U or letter grading.

217C. Personality Development and Education. (4) [Same as Psychology M245J] Lecture, four hours. Review of research and theory of critical content areas in personality development that bear on school performance: achievement motivation, self-concept, aggression, empathy, and other social behaviors; review of status of emotional behavior in personality theory and development. S/U or letter grading.

217D. Language Development and Education. (4) Lecture, four hours. Research and theory on how children develop their first language; sociolinguistic and psycholinguistic issues in preschool and primary years; bilingual and dialectual issues. S/U or letter grading.

217F. Adolescent Development. (4) [Same as Psychology M242G] Seminar, four hours. Designed for graduate students. Review of recent research on physical, cognitive, social, and psychological development during second decade of life. Topics include developmental changes in parent/adolescent relationships, role of peers, identity development, high-school and college attendance, stress and coping, and school adjustment. Letter grading.


219. Laboratory: Advanced Topics in Research Methodology. (4) Laboratory, four hours. Provides assistance in design of research and interpretation of data to advanced students from other divisions. Covers 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 issues in reconstruction of schooling; concepts of function and structure of schooling; organization theory; systems approaches in analysis of organization development and change. Letter grading.

221. Computer Analyses of Empirical Data in Education. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 209C (section 1), 230A. Designed to develop conceptual and technical skills needed for designing and conducting research utilizing statistical packages. Each student conducts two original projects. Equal emphasis on techniques of data analysis and interpretation of results. S/U or letter grading.

222. Introduction to Qualitative Methods and Design Issues in Educational 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 practice of naturalistic, qualitative research design covered in second half of course. Letter grading.

222B. Participant-Observation Field Methods. (4) Lecture, two hours; discussion, two hours. Requisites: course 222A. First of two courses on participant-observation field methods. Key skills (e.g., observation, recording, interviewing, role management, data storage) learned through classroom lectures and simulations, and by conducting actual field-based research project. Letter grading.

222C. Qualitative Data Reduction and Analysis. (4) Lecture, two hours; discussion, two hours. Requisites: course 222B. Continuation of fieldwork project started in course 222B, with focus on practical skills and conceptual/methodological issues in reducing and analyzing qualitative data. Letter grading.

222D. Qualitative Inquiry: Special Topics. (4) Lecture, four hours. Special topics course on some field or aspect of qualitative inquiry. Topics may include classroom ethnography, advanced ethnicographic writing and/or multimedia design, discourse analysis, and microethnography 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 improvement methods as means for driving change in complex systems. Introduction to organizational learning and change, and adult learning concepts. Focus on disciplinary inquiry as strategy to lead change, whether for individuals, teams, or organizations, and its application in education, health care, and other disciplines. S/U or letter grading.

225A. Issues in Education of Exceptional Individuals. (4) Lecture, four hours. Designed for graduate students. Analysis of major research regarding contemporary trends, issues, and programs for exceptional individuals; consideration of commonalities and differences 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 studies and on conceptualization of hypotheses and research programs on division topics and issues. Letter grading.

229B. Narratives of Justice: Disrupting School-to-Prison Pipeline—Arts, Activism, and Agency. (4) [Same as African American Studies CM213XP] Lecture, four hours; discussion, one hour. Exploration of policies and practices, art, activism, and other forms of agency engaging school-to-prison pipeline. Concurrently scheduled with course CM125XP. S/U or letter grading.


231C. Advanced Item Response Theory. (4) Formerly numbered 211C. Lecture, four hours. Requisites: courses 231A, 231B. Review of standard response theory models, multidimensional models, multiple group models and models with covariates, item and person parameter estimation and effect estimation. Item testing analysis, testing model fit, linking and scale alignment, computerized adaptive testing. S/U or letter grading.

231D. Advanced Quantitative Models in Nonexperimental Research: Multilevel Analysis. (4) Lecture, four hours. Requisites: courses 230B, 230C. Examination of conceptual, substantive, and methodological issues in analyzing multilevel data (i.e., on individuals in organizational units as schools, corporations, hospitals, communities); consideration of alternative analytical models. Letter grading.

M231E. Statistical Analysis with Latent Variables. (4) Same as Statistics M244J. Lecture, three hours. Requisites: courses 231A, 231B. Introduction to general latent variable 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 statistical and computational framework, model formulation, identification, estimation, and testing. Letter grading.

233. Professional Writing in Education. (4) Lecture, four hours. Intended to assist in professional development as writers, with focus on style and organization, scholarly genres, modes of discourse, and broader issues 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 relationship between education and economics, including growing use of education as economic policy tool and increased role of economic principles in internal functioning 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 international and comparative levels, link between alternative models of governing, providing and financing education and training systems and impact of alternative policies 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 impact ability of urban educators to meet needs of students in schools with special emphases on equity-related issues as desegregation, school finance, standardized testing, and rights of language minority students. Letter grading.


240. Immigrant Children and Education. (4) Seminar, four hours. Examination of immigrant children and youth experience, with primary focus on educational outcomes. Topics include historical changes in experiences of immigrant youth, dynamics of immigrant families, ethnic, gender, and economic status-related influences in immigrant youths’ adjustment, and school-families connections. Letter grading.

241. Conceptual Frameworks for Research in Urban Education. (4) Examination of diverse set of foundational theories for educational researchers concerned with understanding, designing, and studying transformative, culturally sustaining, and democratic educational practices. Includes both founding parents and neo perspectives in emancipatory/liberatory pedagogy, sociocultural/sociohistorical activity theory, critical race theory, cultural modeling/ culturally sustaining pedagogy and contributions from learning sciences, indigenous, post-colonial, sociological, political-economic, and anthropological approaches to educational research. Attends both to original ideas and ideas that emerged 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 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 accounts of learning sciences have been, and how they will be, used to inform instruction in school. Focus on schools primarily as means to examine how theoretical perspectives on learning can inform praxis and scholarly or educational justice and equity. Letter grading.


C244. Theory and Practice of Intergroup Dialogue: Building Facilitation Skills. (4) Seminar, four hours. Topics include social psychology of intergroup relations, intercultural and dialogic communication theories, 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 other educational competencies for planning, delivering, and evaluating intergroup dialogues in multicultural settings. While providing foundational knowledge in the theory and pedagogy of intergroup dialogue, particular attention to relationships between intergroup dynamics, structural inequalities, systems of privilege and oppression, and mental health outcomes among populations. Concurrently scheduled with course C124. Letter grading.

246A. Decision Analysis and Advanced Computer Methods for Educational Policy and Planning. (4) Seminar, four hours. Decision modeling and decision analysis impact K-12 schooling, higher education, and technical training/workplace settings. With research paper, oral presentation, and two research briefs, students analyze complex problems of special interest to their professional and career objectives. S/U or letter grading.

248. Seminar: Special Topics in Child Development and Early Education. (4) Seminar, four hours. Content varies; limits of investigation set by individual instructor. S/U or letter grading.

249. Theories and Methods in Developmental Science. (4) Lecture, three hours. Broad overview of theories and methods used to study development of children in context. Introduction to foundational theories in field of developmental science, and exposure to range of methods/descriptive approaches—ranging from sources of data to analytic approaches—that researchers use to characterize developmental change. S/U or letter grading.

250A. Fundamentals of U.S. Higher Education System. (4) Three-credit course, four hours. Designed for graduate students. 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 organizational change. Letter grading.

250B. Organizational Analysis of Higher Education. (4) Lecture, four hours. Designed for graduate students. Overview of various social sciences theories used to analyze institutions and issues of contemporary higher education. Emphasis on methodology and how methodology affect research design and framing of research questions in studies of higher education. Letter grading.

252B. Educational Enterprise. (4) Lecture, two hours; discussion, two hours. Requisite: course 252A. Limited to Educational Leadership Program students. Use of structural, human resource, political, and symbolic frameworks to study K-16 education, with focus on educational environments, organizations, and curriculum and instruction. Letter grading.

M253A. Seminar: Current Problems in Comparative Education. (4) (Same as Gender Studies M253A) Seminar, four hours. Examination of some of most influential theoretical and historical currents, including Marx, Nietzsche, Freud, Marcuse, Foucault, Fanon, and de Beauvoir and their contributions to critique of contemporary educational, societal, and political issues. S/U or letter grading.

255B. Seminar: African Education. (4) Seminar, four hours. Designed for graduate students. Contemporary issues in African educational systems, including questions of access and equity, quality and efficiency, relevance and responsiveness, links between schools and communities, and policy and practice in education. S/U or letter grading.


255D. 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. Examination of issues and topics include Asian Americans and community, socioeconomic status, education-to-work transition, language and culture question. S/U or letter grading.

25SH. Seminar: Chicano/Hispanic and Education. (4) Seminar, four hours. Basic issues and topics related to Chicanos and other Hispanic groups in education. Review of literature on specific educational levels and sectors, educational progress, and educational opportunities. Specific topics: assessment, access, tracking, segregation; implications for schooling. S/U or letter grading.

253L. Education and Social Change in Middle East and Islamic World. (4) Seminar, four hours. Critical analysis of educational policies of this region, including the role of traditional and modern (Western) education in affecting social, political, and economic changes in countries of Middle East and Islamic world (including Pacific Rim, South and Central Asia). S/U or letter grading.

255A-255B. Seminars: Special Topics. (4-4) Seminar, four hours. May be repeated for credit. S/U or letter grading. 255A: Measurement; 255B: Design; 255C: Data Analysis.


256B. Seminar: Special Topics in Development. (4) Seminar, four hours. S/U or letter grading.

259. Administration of International Programs in Higher Education. (4) Seminar, four hours. Introduction to theory and practice of internationalization in U.S. higher education, looking at major internationalization movements in historiography of education and critical issues, and methodologies within what has come to be known as critical and educational traditions, including some major theoretical writings in liberal, neo-Marxist, left liberal/postmodernist, and critical education traditions. Letter grading.

260A. Introduction to Programming and Data Management. (4) Lecture, three hours. Fundamental skills of data management and implementation, international student recruitment and support services, international curriculum—area and language studies, English as a second language programs, international careers, faculty development in international travel and research, international partnerships/branch campuses, international development and grant projects, international alumni, distance learning, and open online courses (MOOCs)/hybrid models. Letter grading.

260B. Fundamentals of Programming. (4) Lecture, three hours. Recommended requisite: course 260A. Second course in programming/data science sequence designed for students who do not have programming 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), with an emphasis on learning essential skills through practice. Students become proficient in data management and R programming through weekly problem sets, completed in groups. No prior experience with R required. S/U or letter grading.

260B. Fundamentals of Programming. (4) Lecture, three hours. Recommended requisite: course 260A. Second course in programming/data science sequence designed for students who do not have programming 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), with an emphasis on learning essential skills through practice. Students become proficient in data management and R programming through weekly problem sets, completed in groups. No prior experience with R required. S/U or letter grading.

261E. Higher Education Seminar: Diversity Issues and Research Perspectives. (4) Seminar, four hours. Examination of how racial diversity and its related dynamics have transformed and at some time been re-shaped by institutions of higher education, with focus specifically on student experiences, curricula, institutional policies, and administrative practices. Letter grading.

261F. Seminar: Cognitive and Personal Development of College Students. (4) Seminar, four hours. Examination of cognitive development of college students; issues of personal and social development, including leadership, and interpersonal relations and skills. S/U or letter grading.

262B. Seminar: Reading. (4) Seminar, four hours. S/U or letter grading.

263. Seminar: Higher Education. (4) Seminar, four hours. May be repeated for credit. S/U or letter grading.

264. Seminar: Teacher Education. (4) Seminar, four hours. Research, issues, and practices in preservice and in-service teacher preparation, evaluation, and certification. Social, philosophical, and methodological issues and current trends in America and abroad. Opportunities to observe, participate in, and discuss teacher education programs. S/U or letter grading.

265. Higher Education Policy. (4) Lecture, four hours. Requisites: courses 250A, 250B. Understanding public policy for higher education requires understanding of current issues in the field, major theories that have shaped higher education policy, and how to analyze public policies in historical context. Letter grading.

266. Feminist Theory and Social Sciences Research. (4) Same as Sociology Studies M266L. Lecture, four hours. Examination of how diverse feminist social theories of last quarter century have both challenged and strengthened conventional social sciences theories and their methods. Students become familiar with feminist standpoint, 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. Letter grading. Students become proficient in media literacy as goal of cultural studies. Letter grading.

272. Case-Study Research in Education Policy and Practice. (4) Discussion, four hours. Use of case-study methods in education research, providing opportunity for examining methodological skills in 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 challenges to conventional research assumptions raised by multicultural and postcolonial science and technology studies that have emerged since World War II. Focus on sciences and technologies in third-world development projects, comparative ethnosciences, and postmodernist science and technologies. Letter grading.

275. Race and Education. (4) Lecture, four hours. Designed for graduate students. Examination of role of race in educational policymaking, exploring how broad interpretation of how schools contribute to racial stratification and inequality by linking sociological and sociopsychological theories of race, racial attitudes, and conflict to historical policy analysis. Letter grading.

276. Contemporary Theories of Writing. (4) Lecture, four hours. Review of current theories of writing and literacy research and examination of relationships among writing development and human development. In particular, examination of history of writing research over last three decades as part of broader intellectual history. Letter grading.

278. 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 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 medical and critical media literacy projects. Concurrently scheduled with course CM178. Letter grading.

278. Critical Media Literacy and Politics of Gender: Laboratory. (2) Same as Gender Studies CM278L. Laboratory, two hours. Corequisite: course CM278L. Hands-on production experiences 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 recent developments 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 levels and understanding 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 critical theories, issues, and methodologies within what has come to be known as critical and educational tradition, including some major theoretical writings in liberal, neo-Marxist, left liberal/postmodernist, and critical education traditions. Letter grading.

285. Education and Law. (4) 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 freedom of expression, technology-related 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 education process, beginning with issues regarding practices that may endanger school-funded pipeline to obtaining legal redress regarding race-conscious policies. Every Student Succeeds Act, K-12 teacher tenure, school sports, unmet needs of English language learners, misuse of special education system, internationalization of higher education, charter school movement, and rights of undocumented students. Concurrently taught with Law 282. Letter grading.

296. Language, Cultures, and Education. (4) Same as Anthropology M296. Seminar, four hours. Examination of ongoing movement to reclaim and reimagine schooling as site to sustain indigenous, Black, Latinx, Asian and Pacific Islander communities, including ways to problematize identities at the intersection of 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 maintaining schools that 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 pedagogical traditions. Work on cultural sustainability pedagogy (CSP) has joined these decades (and centuries) of work to offer vision of school that seeks to perpetuate and foster—to sustain—inquisitive, literate, and cultural plurality as part of schooling for positive social transformation and re-valorization. S/U or letter grading.

297. Research on Language Issues in Education. (4) Seminar, four hours. Focus on formal and informal education, including study of opportunities and challenges offered by language variation found in schools. Examination of language acquisition theories along with those of language ideologies, language policies, and multiculturalism.

298. Research Apprenticeship Course. (2) Discussion, two hours. Course facilitates mentorship model of training PhD students in education, 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.

C292A. Practicum in Intergroup Dialogue Facilitation. (4) Seminar, three hours. Corequisite: course C244. Application and further development of content and skills learned in course C244. In addition to co-facilitating weekly dialogues, students are expected to participate in weekly teaching apprentice practicum seminars. Readings, discussions of group dynamics, and one-on-one meetings with assigned coach. Fosters supportive learning environment where each student can gain momentum and knowledge into skills of dialogue facilitation and continue process of self-reflection and critical inquiry of own identities, biases, beliefs, and perspectives. Includes learning as large group and time to receive individualized consultation as co-facilitation dyad from instructor. Concurrently scheduled with course C192A. Letter grading.

M294A-M294B. High School Reform: Persuasion and Argument: Preparatory Challenge. (Same as Law M243A-M243B.) Seminar, four hours. Course M294A is enforced requisite to M294B. Research seminars with focus on what is probably most serious
and neglected problem in American educational reform. In past half century real progress has been made in preschool, gains in achievement in early grades and neglected problem in American educational reform. —reform of curriculum and instruction for young children—has been established—but reform of high school education has been slow. The high school is a place of institutional and policy roots of these problems and assessment of available research on key dimensions to help students launch original research studies in one related area. Presentation is a major component of high school reform efforts included. In Progress (M294A) and S/U or letter (M294B) grading.

295. Freire, (4) Seminar, four hours. Requisite: course C125 or consent of instructor. An introduction to the Fall 1980 study of Paulo Freire linked to social context in which it took place. Study of his life and work in five phases: Brazilian experience (1921 to 1951); Curitiba experience, where he published "Educación como Praxis de la Libertad y Pedagogía de la Oppressión," as well as other lesser-known works, while also devoting most of this period to empirical research in literacy training (1964 to 1969); his work at Harvard, and then World Council of Churches in Geneva (1970 to 1980), including his consulting with postcolonial revolutionary governments in Africa; his return to Brazil; and, finally, his Secretary of Education in São Paulo (1989 to 1992); and his global travels from 1980 until his death in 1997. Focus on work left incomplete before his death (including eco-pedagogy and school curriculum) and his technical critiques, and impact in world, his methodology of generative work, and comparison with other theoretical referents. Letter grading.

296A-296D. Seminars: Research Topics in Education. (2 each) Seminar, three hours. Advanced study and analysis of current topics in education. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

296G. 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.

296H. Research Topics in Education: Organization Theory. (2) Lecture, two hours. Examination and analysis of organizational theories, especially as they apply to school organizations. Letter grading.

296I. Theory in Educational Inquiry. (2) Seminar, two hours. Introduction to theoretical and conceptual frameworks in education, special emphasis on conceptual and empirically based work as means for grounding discussions of theory and application. 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 (instrument) development. Questionnaire design, format, and delivery; question writing, pretesting, and testing; and sample design and considerations, nonresponse, measurement error, and data preparation. Letter grading.

298K. 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 questions. Understanding of research designs as strategies for investigating educational problems, such as types of questions that can be answered appropriately with qualitative and mixed methods research designs. Emphasis on conceptual and empirical components, planning for fieldwork and data collection, sampling, and data analysis. Letter grading.


301. Introduction to Information and Presentation Tools. (2) Laboratory, two hours. Limited to credential program students. Sequence of laboratory sessions providing preservice teachers with introduction to educational technology infrastructure and classroom presentation tools and techniques, including e-mail, functions and Internet, and presentation software and multimedia elements. S/U grading.

305. Health Education for Teachers. (2) Lecture, two hours. Limited to Teacher Education Program students. Includes examination of personal and community health. Topics include psychoactive drugs (alcohol, tobacco, and narcotics), human sexuality, nutrition, community health resources, and analysis of health and physical education programs. Letter grading.

309. Methodologies for English Language Learners. (2) Laboratory, two hours. Limited to credential program students. Pedagogy and 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 strategies and activities. Letter grading.


315B. Elementary Literacy Methods. (3) Seminar, three hours. Theoretical principles and pedagogical strategies necessary for developing and maintaining balanced comprehensive literacy program for elementary school children. Examination of how children learn to read, write, and use language. Letter grading.

318A. Integrated Methods for Elementary Teachers. (3) Lecture, three hours. Development and implementation of instructional programs and analyses of instructional methods for teaching K-6 content, with emphasis on interdisciplinary approach that integrates content areas. 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. (3) Lecture, four hours. Development and implementation of instructional programs and analyses 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, including English Language Development Standards—all of which address needs and various interests of diverse students. Ethnic studies curriculum focuses on Chicano/a studies, African American/Black studies, indigenous studies, Asian American studies, and gender/sexuality studies, and how to develop curriculum focused on local histories in urban classrooms. S/U grading.

321B. Ethnic Studies Curriculum Development. (3) Lecture, three hours. Examination and development of theoretical frameworks around 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 through 12, including English Language Development Standards—all of which address needs and various interests of diverse students. Ethnic studies curriculum focuses on Chicano/a studies, African American/Black studies, indigenous studies, Asian American studies, and 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 school sites with racially, culturally, and linguistically diverse students in culturally, linguistically inclusive observation and participation period, students analyze effective strategies for achieving learning for all students, including socio-cultural analysis and appropriate use of educational technology. S/U grading.

330B. Student Teaching. (4 to 6) Site-based fieldwork, 10 to 20 hours. Requisite: course 330A. Students are assigned to student teach in designated school sites with racially, culturally, 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. S/U grading.

330C. Student Teaching. (4 to 8) Site-based fieldwork, 10 to 30 hours. Requisite: course 330A. Students are assigned to student teach in designated school sites with racially, culturally, linguistically diverse student populations. Throughout student teaching period, students as novice teachers plan, implement, 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, 40 hours. Students are employed by local school districts to schools designated for a designated school sites with racially, culturally, and linguistically diverse student populations. Students also work in collaborative teaching 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 curriculum and instruction. Emphasis on study and
utilization of constructivist strategies and their application in elementary and secondary schools. Examination of different methods of computer literacy and teaching subject matter. Students may conduct ethnographic inquiry of local community of their designated partnership district. 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 resulting in 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.

390A-390B-390C. Seminar Series: Human Development and Psychology. (1–1–1) Seminar, one hour. Required of first-, second-, and third-year students. Seminar utilizes students exploring contemporary issues in applied human development and provides framework to facilitate research and training for development within school and UCLA community, as well as forum to share information with other investigators and institutions. May be repeated for credit. S/U grading.


403. Infant-Toddler Child Development and Care. (4) Lecture, four hours. Exploration of infant and toddler development (ages 0 to 3) and implications of these issues both as team members and as individuals. 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 that provide framework for schooling 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 evaluating program or policy implementation or developing program 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 study impact of college on students? How can these assessments 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 new 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 computational topics 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. (4) Lecture, four hours. Limited to credential program students. Focus on methodology of teaching language of emphasis for bilingual teachers. 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 as 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. Conducted in language of authorization. Discusses communities of culture of emphasis in student's 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 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 with peers 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 and projects. Students conduct interview of college student affairs. Examination of relationship 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) Lecture, two hours; 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 qualitative and mixed-methods approaches to the study of the student affairs context. 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 and program evaluation. Development of knowledge of and 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 analyzing assessment projects within student affairs context. Letter grading. Study of issues and perspectives underlying program design/implementation and program review/assessment and application by 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 degree of learning, retention and transfer. Planning and monitoring 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 structures and kinds of law governing educational systems 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, role of subordinates in policy-making process). S/U or letter grading.
440A. 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 schools. Limited to UG or letter grading.

44B. 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 negotiations, 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. Promotion of 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; seminar, two hours. Limited to Educational Leadership Program students. Use of structural, human resource, political, and symbolic frames to study K-16 education. Lecture, 452A. 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.

454B. 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.

455. Writing and Inquiry. (4) Lecture/workshop, eight hours per month; discussion, one hour; laboratory, one hour. Limited to students in Educational Leadership Program. Intended to assist students’ professional development as writers, addressing style and organization, scholarly genres, modes of discourse, and 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, strengthening evaluation, and 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 content of media by critically questioning media representations and creating their own alternative media messages. Critical media literacies combine 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 classroom. 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 Teaching. (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 organizations. Focus on 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 their philosophical beliefs 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 and cultivation of one’s 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 can coach lead and produce these results. Methods and assignments include presentations, analyzing videos, group work, interviews, analyses of case studies, and two structuring statement of one’s own philosophy of coaching. Letter grading.

473. Diversity Leadership in Sports and Athletics. (4) Seminar, four hours. Consideration of 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 coaching and administration of university, professional organizations, and most importantly student-athletes. Sports as industry and as enterprise, Covers history and the role in higher education and wider society. Emphasis on student-athletes’ experiences and outcomes, well-being, and readiness for educational and professional opportunities. Connections to emerging growing needs 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. Coach 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 and sport, topics such as anti-doping, fairness, and professionalism in coaching—overarching frameworks, perspectives, deep beliefs, and values that drive coaches’ specific practices—as their philosophical beliefs 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 and cultivation of one’s 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 can coach lead and produce these results. Methods and assignments include presentations, analyzing videos, group work, interviews, analyses of case studies, and two structuring statement of one’s own philosophy of coaching. 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 sport personnel are often first line of defense and are best positioned to recognize problems 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, eating disorders, etc.). Students gain knowledge base for appropriate referrals and interventions, and range of tools for creation of safe spaces within their organizations 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 intellectualists, past and present. Emphasis on subject-centered activities in teaching and learning. Various conceptions of truth, belief, and fact and opinion, and their application to classroom learning situations. S/U or letter grading.

480D. Instructional Strategies in Urban Education: Visual and Performing Arts. (4) Lecture, four hours; discussion, two hours. Focus on instructional practices that integrate visual and performing arts into urban classrooms. Debriefing of field experiences to subject-centered 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 emotional scaffolding strategies and reflection strategies to make learning accessible, engaging, and relevant. Letter grading.

490A. Instructional Decision Making. (4) Lecture, four hours; seminar, two hours; discussion, two hours. Examination of alternative solutions for practical problems that classroom teachers face in making curricular decisions. Analysis of influences of psychological, societal, and institutional factors in curricular decisions. Letter grading.

492. Data Centric Problem-Based Learning for Humanizing STEM. (4) Seminar, four 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 computational thinking further contextualizes humanizing STEM education. Participants (pre-service and in-service) explore how their students’ interests and lived experiences connect with STEM challenges. Critical analysis of data and practices of computational thinking (CT) are leveraged toward humanizing STEM education and implementation of PBL project. Methods course is aligned with California 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.
Faculty Roster

Professors
Asad A. Abidi, PhD
Abeer A.H. Alwan, PhD
Katsushi Arisaka, PhD
Danijela Cabric, PhD
Robert N. Candler, PhD
M.-C. Frank Chang, PhD (Wintek Endowed Professor of Electrical Engineering)
Panagiotis D. Christofides, PhD (William D. Van Vorst Professor of Chemical Engineering Education)
Jingsheng Jason Cong, PhD (Volgenau Professor of Engineering Excellence)
Suhas N. Diggavi, PhD
Lara Dolecek, PhD
Christina P. Fragouli, PhD
Puneet Gupta, PhD
Lei He, PhD
Subramanian S. Iyer, PhD (Charles P. Reames Endowed Professor of Electrical Engineering)
Bahram Jalali, PhD (Fang Lu Endowed Professor of Engineering)
Mona Jarrahi, PhD
Chandrashekar J. Joshi, PhD
Douglas G. Lichtman, JD
Jia-Ming Liu, PhD (Northrop Grumman Opto-Electronic Professor of Electrical Engineering)
Wentai Liu, PhD
Dejan Markovic, PhD
Warren B. Mori, PhD
Ali Mosleh, PhD
Stanley J. Osher, PhD
Aydogan Ozcan, PhD (Volgenau Professor of Engineering Innovation)
Suchakar Pamarti, PhD
Gregory J. Pottie, PhD
Yahya Rahmat-Samii, PhD (Northrop Grumman Professor of Electrical Engineering/Electromagnetics)
Behzad Razavi, PhD
Vwani P. Roychowdhury, PhD
Henry Samueli, PhD
Majid Sarrafzadeh, PhD
Ali H. Sayed, PhD
Stefano Soatto, PhD
Jason L. Speyer, PhD
Mani B. Srivastava, PhD
Dwight C. Streit, PhD
Paulo Tabuada, PhD
Liene Vandenbergh, PhD
Mihaeala von der Schaar, PhD
John D. Villasenor, PhD
Kang L. Wang, PhD (Raytheon Company Professor of Electrical Engineering)
Yuanxun Ethan Wang, PhD
Richard D. Wesel, PhD
Benjamin S. Williams, PhD
Chee Wei Wong, PhD (Carol and Lawrence E. Tannas, Jr., Endowed Term Professor of Engineering)
Jason C.S. Woo, PhD
C.-K. Ken Yang, PhD
Lixia Zhang, PhD

Professors Emeriti
Frederick G. Allen, PhD
Francis F. Chen, PhD
Babak Daneshmand, PhD
Harold R. Fetterman, PhD
Stephen E. Jacobsen, PhD
Rajeev Jain, PhD
William J. Kaiser, PhD
Alan J. Laub, PhD
Nhan N. Levan, PhD
Dee-Son Pan, PhD
Izhak Rubin, PhD
Frederick W. Schott, PhD
Oscar M. Stafsudd, Jr., PhD
Gabor C. Temes, PhD
Donald M. Wiberg, PhD
Alan N. Willson, Jr., PhD (Charles P. Reames Endowed Professor Emeritus of Electrical Engineering)
Kung Yao, PhD

Associate Professors
Aydin Babakhani, PhD
Sam Emaminejad, PhD
Alyson K. Fletcher, PhD

Assistant Professors
Omid Abari, PhD
Xiang Chen, PhD
Achuta Kadambi, PhD
Jonathan C. Kao, PhD
Ankur M. Mehta, PhD
Nader Sehatbakhsh, PhD
Yang Zhang, PhD

Adjunct Professors
Darshul Divsalar, PhD
Dan M. Goebel, PhD
Diana L. Huffaker, PhD
Asad M. Madni, PhD
Ingrid M. Verbauwhe, PhD
Eli Yablonovitch, PhD

Adjunct Associate Professor
Chi On Chui, PhD

Adjunct Assistant Professors
Shervin Moloudi, PhD
Zachary D. Taylor, PhD

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; Graduate 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 specialization, 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, micromechanical 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. Within a multidisciplinary team structure, 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 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

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 96C; 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.

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 inventions 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

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).

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.

Graduate Major
Electrical and Computer Engineering MS, PhD
The graduate program provides students with an opportunity to pursue advanced coursework, in-depth training, and research investigations in several fields.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA grad-
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, data 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, one hour; outside study, six hours. Requisite: Physics 1C. Introduction to concepts of modern physics necessary to understand solid-state devices, including elementary quantum theory; Fermi energy band structure; conduction and valence electrons in solid semiconductors; determination 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, six hours. Requisite: Physics 1C. Honors course parallel to course 2. Letter grading.

3. Introduction to Electrical Engineering. (4) Lecture, two hours; laboratory, two hours; outside study, eight hours. Introduction to field of electrical engineering; introduction to devices 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 Engineering or Electrical Engineering majors), Mathematics 33B. Honors course parallel to course 10. 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 transistors. Ohm’s law voltage and current division, Thévenin and Norton equivalent circuits, voltage divider. Determination of device characteristics, resistive diode and transistor equivalent circuits and models. Small-signal steady state 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 capacitors, resistors, inductors, and op-amps. Ohm’s law voltage and current division, Thévenin and Norton equivalent circuits, small-signal 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 corequisite: course 110. Experiments with electrical circuits containing capacitors, resistors, inductors, transformers, and op-amps. Steady state power analysis, frequency response properties of circuit synthesis, and two-port network principles. Letter grading.

112. Introduction to Power Systems. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 110. Complete overview of organization and operation of interconnected power systems. Development of appropriate models for interconnected power systems and learning how to perform power flow, economic dispatch, and short circuit analysis. Introduction to power system transient dynamics. Letter grading.


113DA. Digital Signal Processing Design. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. 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 imaging, speech, music, or video using DSP hardware. In progress grading (credit to be given only on completion of course 113DB).

113DB. Digital Signal Processing Design. (4) Laboratory, four hours; outside study, eight hours. Enforced requisites: courses 113 and 113A. 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, radar, medical imaging, speech, audio, or video using DSP chip. Completion of projects begun in course 113DA. 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 and implementation of signal processing systems for communications, speech, video, audio, or image using DSP hardware. In progress grading (credit to be given only on completion of course 114).

115. Analog Electronic Circuits I. (4) Lecture, four hours; discussion, one hour; outside study, seven 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, and compression 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, seven hours. Enforced requisites: courses 110L or 111L, 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 cir-

115C. Digital Electronic Circuits. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 100 or 115A, and Computer Science M108. Design of digital circuits; logic design and modern logic families (static CMOS, pass-transistor, dynamic logic), integrated circuit (IC) layout, digital circuits (logic gates, flipflops/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. Descriptive modeling, implementation, and application of advanced topics. Topics may vary by instructor and include communication circuits, power electronics, and instrumentation and may entail simulation-based design projects. Emphasis throughout on design-oriented analysis and rigorous approach to practical circuit design. Letter grading.

M116C. Computer Systems Architecture. (Same as Computer Science M115B) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course M116 or Computer Science M151A, Computer Science 32, Recommended or course M116L or Computer Science M152A, Computer Science 111. Computer system organization and design, implementation of CPU datapath and control, instruction set design, memory hierarchy (caches, main memory, storage hierarchy and management) and instruction set, input/output subsystems (bus structures, interrupts, DMA), performance evaluation, pipelined processors. Letter grading.

M116L. Introductory Digital Design Laboratory. (Same as Computer Science M152A) Laboratory, four hours; outside study, two hours. Enforced requisite: course M116 or Computer Science M151A. Hands-on design, implementation, and debugging of digital logic circuits, use of computer-aided design tools for schematic capture and simulation, implementation of complex circuits using programmed array logic, design projects. Letter grading.

M119. Fundamentals of Embedded Networked Systems. (Same as Computer Science M119.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 132B or Computer Science M134, Calculus 1 or 131A, or Electrical Engineering 110, Mathematics 170A, 170E, Statistics 100A; Computer Science 33. Design trade-offs and principles of operation of cyber physical systems such as devices and systems connecting Internet of Things. Topics include signal propagation and modeling, sensing, node architecture and operation, and applications. Letter grading.

121B. Principles of 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, transport, frequency behavior, voltage limitations. Letter grading.

121DA-121DB. Semiconductor Processing and De-vice Design. (4-4) Design fabrication and characterization of p-n junction and transistors. Students perform various processing steps such as wafer preparation, oxidation, diffusion, metallization, and photolithography. Introduction to CAD tools used in integrated circuit processing and device design. Device structures and properties of MOS devices; epitaxial growth; process control; computer-aided process design; computer-aided integration tool based on SUPREM. Course familiarizes students with those tools. Using CAD tools, CMOS process integration to be designed. 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 and matching, vertex and edge coloring, 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 fundamental properties of electrical activity in neurons; technology for measuring neural activity; effective mass, Bohr magneton, and spin, as well as theoretical approaches. From these nanoscale components, discussion of basic behaviors of nanosystems and how they are modeled in vivo and noise, contrasted with those of scaled CMOS. Incorporation of design project in which students are challenged to design electronic nanosystems. Letter grading.

151A. Probability and Statistics. (4) Lecture, four hours; discussion, four hours; outside study, ten hours. Requisites: course 102 (enforced), Mathematics 32B, 38B. Introduction to basic concepts of probability, including random variables and vectors, distributions and densities, moments, characteristic functions, and limit theorems. Applications to communication, control, and signal processing. Introduction to computer simulation and generation of random events. Letter grading.

152A. Introduction to Communication Systems. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: courses 102, 111, 131A. Review of basic probability, basics of hypothesis testing, sufficient statistics and waveform communication, signal-design tradeoffs for digital communication systems, basics of error control coding, intersymbol interference channels and orthogonal frequency division multiplexing (OFDM), basics of wireless communications. Letter grading.


154. 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 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 C247. Letter grading.

M146. Introduction to Machine Learning. (4) Same as Computer Science M146.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 131A, Mathematics 33A. Topics include fundamental properties of electrical activity in neurons; technology for measuring neural activity; effective mass, Bohr magneton, and spin, as well as theoretical approaches. From these nanoscale components, discussion of basic behaviors of nanosystems and how they are modeled in vivo and noise, contrasted with those of scaled CMOS. Incorporation of design project in which students are challenged to design electronic nanosystems. Letter grading.
hands-on overview of data science domain by blending theoretical and practical instruction. Data science lifecycle: data selection and cleaning, feature engineering, model selection, and prediction methodologies. Letter grading.

151E. Introduction to Microscale and Nanoscale Manufacturing. (Same as Bioengineering M153, Chemical Engineering M153, and Mechanical and Aerospace Engineering M183B.) Lecture, three hours; laboratory, four hours; outside study, five hours. Focus on advanced techniques and instruments of various microfabrication and nanofabrication technologies. Letter grading.

162A. Wireless Communication Links and Antennas. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 101B. Basic properties of transmitting and receiving antennas in wireless communication systems. Array synthesis. Adaptive arrays. Friis transmission formula, radar equations. Cell-site and mobile antennas, bandwidth budget. Noise in communication systems (transmission line, atmospheric, etc.). Gain, bandwidth, and mobile antennas, cell coverage for signal and traffic interference, multipath fading, ray bending, and other propagation phenomena. Letter grading.

163A. Introductory Microwave Circuits. (4) Lecture, four hours; outside study, two hours. Enforced requisites: course 101B. Transmission lines description of waveguides, impedance matching techniques, power dividers, directional couplers, active devices, transistor amplifier design. Letter grading.

163C. Introduction to Microwave Systems. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: course 101B. Theory and design of modern microwave systems such as satellite communication systems, radar systems, wireless sensors, and biological applications of microwaves. Letter grading.

163DA. Microwave and Wireless Design I. (4) Lecture, one hour; laboratory, three hours; outside study, eight hours. Enforced requisites: courses 101A, 101B. Course 163DA is enforced requisite to 163DB. Limited to senior Electrical Engineering majors. Capstone design course on electrodynamics of ionized gases and other specialized topics. Letter grading.

163DB. Microwave and Wireless Design II. (4) Lecture, one hour; laboratory, three hours; outside study, eight hours. Enforced requisites: courses 101A, 101B, 163DA. Course 163DB is enforced requisite to 163DA. Limited to senior Electrical Engineering Majors. Focus on advanced topics in communication circuit design and on emerging technologies. Letter grading.

164DA-164DB. Radio Frequency Design Project I, II. (4–4) Lecture, one hour; laboratory, three hours; outside study, eight hours. Enforced requisite: course 115B. Course 164DA is enforced requisite to 164DB. Limited to senior Electrical Engineering majors. 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 by students of end-to-end systems in application context, managing trade-offs across subsystems while meeting constraints and optimizing metrics related to cost, performance, ease of use, manufacturability, testing, and power. Oral and written presentations of project results required. In Progress (164DA) and letter (164DB) grading.

170A. Principles of Photonics. (4) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisites: courses 2, 101A. Development of fundamental 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 interference and interferometers, optical coupling and radiation, optical absorption and emission, principles of lasers and light-emitting diodes, and optical detection. Letter grading.

170B. Photonic Devices and Circuits. (4) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisites: courses 2, 101A. Coverage of core knowledge of practical photonic devices and circuits. Topics include optical waveguides, optical fibers, optical sources and detectors, fiber-optic light-emitting diodes, optical detectors, and integrated photonic devices and circuits. Letter grading.

170C. Photonic Sensors and Solar Cells. (4) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisites: courses 2, 101A. Fundamentals of detection of light for communication and sensing, as well as conversion of light to electrical energy in solar cells. Electromagnetic interference with photodetectors, noise processes and figures of merit, thermal detectors, and photovoltaic solar cells of various types and materials. Letter grading.

173DA-173DB. Photonics and Communication Design. (4–4) Lecture, one hour; laboratory, three hours; outside study, eight hours. Introduction to measurement of basic photonic devices, including LEDs, lasers, detectors, and amplifiers; fiber-optic fundamentals and measurements of fiber systems. Modulation techniques, including AM, FM, phase and suppressed carrier methods. Possible projects include lasers, optical communication, and biomedical imaging and sensing. Letter grading (credit to be given only on completion of course 173DB). Course 173DA is enforced prerequisite to 173DB. Limited to seniors. Enforced requisite: course 170A, 173DA. Finalization of design and testing of projects begun in course 173DA. Letter grading.

174. Photonics in Biomedical Applications. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisites: course 115A. Study of different types of optical systems and their physics background. Examination of their roles in current and projected biomedical applications. Specific capabilities of photonics to be related to each example. Letter grading.

180DA-180DB. Systems Design. (4–4) Limited to senior Electrical Engineering majors. Advanced systems design integrating communications, control, and signal processing subsystems. Introduction to advanced topics related to projects through lecture and laboratories. Open-ended projects offering. Student teams create high-performance designs that manage trade-offs among subsystem components, including cost, performance, ease of use, and other relevant metrics. Assessment of student design, implementation, and evaluation of project results. Enforced requisites: course 180DA. Completion of projects begun in course 180DA. Letter grading.

183AD. Design of Robotic Systems I. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Study of robotic systems. Introduction to robotics design including integrated electromechanical design, design for manufacturing (DFM), design software, and design automation. Topics in robotic manufacturing include materials, sensors and actuators, operation, programming, and rapid prototyping. Topics in control include modeling, path planning, learning and adaptation, and human-robot interaction. Additional topics may include distributed and multi-robot systems, bio-inspired robotics, project management, and societal implications. Letter grading.

183DA. Design of Robotic Systems II. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 183DA. Recommended: courses 141, 142. Course 183DA is requisite to 183DB. Limited to senior Electrical Engineering majors. Topics in robotic design include integrated electromechanical design; design for manufacturing (DFM), design software, and design automation. Topics in robotic manufacturing include materials, sensors and actuators, operation, programming, and rapid prototyping. Topics in control include modeling, path planning, learning and adaptation, and human-robot interaction. Additional topics may include distributed and multi-robot systems, bio-inspired robotics, project management, and societal implications. Open-ended projects vary annually. Student teams create and analyze 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). Letter grading (credit to be given only on completion of course 183DA). 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 center around group projects that give students intensive experience on hardware design, microcontroller programming, and project coordination. Several projects based on autonomous robots that traverse small mazes and compete against other teams in weekly or target regional competitions. Students may submit proposals that are evaluated and approved by faculty members. Topics include sensing circuits and amplifiers, microcontroller programming, feedback control, actuation, and motor control. In Progress (184DA) and letter (184DB) grading.

M185. Introduction to Plasma Electronics. (4) (Same as Physics M122.) Lecture, three hours; discussion, one hour; outside study, six hours. Enforced requisite: course 101A or Physics 1110A. Senior-level introduction course on electrodynamics of ionized gases and
applications to materials processing, generation of coherent radiation and particle beams, and renewable energy sources. Letter grading.

188. Special Courses in Electrical Engineering. (4) Seminar, four hours; outside study, eight hours. Special topics in electrical engineering for undergraduate students taught on a regular 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.

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 assignments and lecture course instruction. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N/P or letter grading.

194. Research Group Seminars: Electrical Engineering. (2 to 4) Seminar, four hours; outside study, eight hours. Designated for undergraduate students who are part of research group. Discussion of research methods and current literature in field. May be repeated for credit with topic change.

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 may be required and repeated for credit with student 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 microprocessors; high-level synthesis, logic simulation, 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 and thermal aspects, reliability, and manufacturability. Discussion of principles of modeling and optimization codevelopment. Letter grading.

201D. Design in Nanoscale Technologies. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 115C. Challenges of digital circuit design and layout in deeply scaled technologies, with focus on design-manufacturing interactions. Summary of large-scale system design; basic manufacturing flow; lithographic patterning, resolution enhancement, and mask preparation; yield and variation modeling; circuit reliability and aging issues; design rules and their origin; layout design for manufacturing; test structures and process control; circuit and architecture methods for variability mitigation. Letter grading.

202A. Embedded Systems. (4) (Same as Computer Science M202A.) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 115C. Challenges of digital circuit design and layout in deeply scaled technologies, with focus on design-manufacturing interactions. Summary of large-scale system design; basic manufacturing flow; lithographic patterning, resolution enhancement, and mask preparation; yield and variation modeling; circuit reliability and aging issues; design rules and their origin; layout design for manufacturing; test structures and process control; circuit and architecture methods for variability mitigation. 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. System-level management and cross-layer methods for power and energy consumption in computing and communication at various scales ranging across embedded, mobile, personal, enterprise, and data-center scale. Topics include computing, networking, sensing, and control technologies and algorithms for improving energy sustainability in human–cyber–physical systems. Topics include: switched networks, physical design, and energy-aware systems; dynamic power management; power-performance scaling and energy proportionality; duty-cycling; power-aware scheduling, low-power power management, and hardware/software in- terface. Essential graduate student background for research and industry career paths in wireless devices for applications including 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 science, engineering, and related disciplines. Introduction to matrix theory and linear algebra, in language which virtually all of modern science and engineering is conducted. Review of matrices and linear equations and introduction to graduate-level topics. Letter grading.

206. Machine Perception. (4) (Same as Computer Science M268.) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for graduate students in systems, signal processing and classical, and related disciplines. Introduction to matrix theory and linear algebra, in language which virtually all of modern science and engineering is conducted. Review of matrices and linear equations and introduction to graduate-level topics. Letter grading.

208A. Functional Analysis for Applied Mathematics and Engineering. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisites: course 208A (or Mathematics 115A and 115B), Mathematics 131A, 131B, 132. Topics may include L∞ spaces, Hilbert, Banach, and separable spaces, Fourier transforms, Riesz representation theory, linear operators and their adjoints; self-adjoint and compact operators. Spectral theory, Differential operators such as Laplacian and eigenvalue problems. Resolvent distributions and Green’s functions. Semigroups. Applications. S/U or letter grading.

210A. Adaptation and Learning. (4) Lecture, four hours; discussion, one hour; outside study, seven 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. 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 techniques. Topics include two-dimensional linear system theory, image transforms, and enhancement. Concepts covered in lecture applied in computer laboratory assignments. Letter grading.


214A. Digital Speech Processing. (4) (Same as Bioengineering M214A.) Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisite: course 214A. Theory and design of digital processing of speech signals. Mathematical models of human speech production and perception mechanisms, speech analysis/synthesis. Techniques include linear prediction, filter-bank models, and homomorphic filtering. Applications to speech synthesis, automatic recognition, and hearing aids. Letter grading.

218B. Advanced Topics in Speech Processing. (4) Lecture, three hours; discussion, one hour; computer study, two hours. Preparation: course 214A. Advanced techniques used in various speech-processing applications, with focus on speech recognition by humans and machine. Preparation: prior training in probability theory, random processes, and linear algebra. Recommended requisites: course 210A. Adaptation, learning, estimation, and detection over networks. Steepest-descent algorithms, stochastic-gradient algorithms, convergence, stability, tracking, and performance, algorithms for adaptation and learning, adaptive filters, learning and classification, optimization. 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 systems, noise, power consumption, and bandgap references. Letter grading.

298BS. Seminar: 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 processor architectures; embedded software; distributed systems; and actuating systems and embedded security. May be repeated for credit with topic change. S/U grading.
215B. Advanced Digital Integrated Circuits. (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 computer (SRAM) and memory simulation methods for digital circuits. Letter grading.

215C. Analysis and Design of RF Circuits and Systems. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 215A. Principles of RF circuit and system design, with emphasis on monolithic implementation in VLSI technology. Basic concepts, communications background, transistors, tunable filters, low-noise amplifiers and mixers, oscillators, frequency synthesizers, power amplifiers. 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, discrete- 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 electronic devices by limiting functional blocks, chips, and systems. Advanced clocking structures, phase-locked loop designs, clock generation, and high-performance wire-line transmitters, receivers, and timing recovery circuits. Letter grading.

M216A. Design of VLSI Circuits and Systems. (4) (Same as Computer Science M258A.) Lecture, four hours; discussion, two hours; laboratory, four hours; outside study, two hours. Requisites: courses M16 or Computer Science M15A, and 115A. Recommended: course 115C. LSIs/VLSI design and application in computer systems. Fundamental design techniques that can be used to implement complex integrated systems. 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 from digital signal processing (DSP) theory, architecture, and circuit design applied to complex DSP algorithms in emerging applications for personal communications. Letter grading.

M216C. LSI in Computer System Design. (4) (Same as Computer Science M258C.) 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 architecture and VLSI design tools. Letter grading.

M217. Biomedical Imaging. (4) (Same as Bioengineering M217.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 114 or 211A. Optical imaging modalities in biomedicine. Other nonoptical imaging modalities discussed briefly for comparison purposes. Letter grading.

218. Network Economics and Game Theory. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Discussion of how different cooperative and noncooperative games among agents can be constructed to model, analyze, optimize, and shape emerging interactions among users in different networks and system settings. How strategic agents can successfully compete with each other for limited and time-varying resources by optimizing their decision rules dynamically over time, from the past to the present and forward to the future, with other agents. To determine their optimal actions in these distributed, informationally decentralized environments, agents need to learn and model directly or implicitly the strategies matched to their actions. 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 learning and prediction, self-organizing maps, association rules from machine learning, such as support vector machines, different regression engines, different types of regularization and kernel techniques, deep learning, and Bayesian graphical models on techniques to evaluate relative performance of different methods and their applicability. Includes computer projects that explore entire data analysis and modeling cycle: collecting large datasets, deriving 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. Prerequisites: course 215A. Physical concepts and device considerations of field effect devices and charge-coupled devices. Letter grading.

221B. Physics of Semiconductor Devices II. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Physical principles and design considerations of semiconductor devices. Shockley diode, tunnel diode, IMPATT diodes, transferred electron devices, tunnel diodes, microwave transistors. Letter grading.

222. Integrated 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 circuit designs. Topics include bulk crystal and epitaxial growth, thermal oxidation, ion implantation, chemical vapor deposition, sputtering, etching, lithography, and metallization. Introduction of advanced process simulation tools. Letter grading.

223. Solid-State Electronics I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended requisite: course 270. Energy band theory, electronic band structure of various elementary compounds, and alloy semiconductors, defects in semiconductors, Recombination mechanisms, transport properties. Letter grading.

224. Solid-State Electronics II. (4) Lecture, four hours; outside study, two hours; courses 223, 222. Current research topics in high frequency, low power operation, quantum well devices, and novel applications of fundamental principles. Letter grading.

225. Physics of Semiconductor Nanostructures and Devices. (4) Lecture, four hours; outside study, eight hours. Requisite: course 223. Theoretical and experimental study of the physical properties of semiconductor structures. Quantum size effects and low-dimensional systems. Application to nanoscale sensor devices, including negative resistance diodes, transistors, and detectors. Letter grading.

226. Seminar: Advanced Topics in Solid-State Electronic Devices. (4) Seminar, four hours; outside study, eight hours. Requisites: courses 223, 222. Current research areas, such as radiation effects in semiconductor devices, diffusion in semiconductors, optical and micro-wave semiconductor devices, nonlinear optics, and electron emitters. Letter grading.

229. Seminar: Advanced Topics in Solid-State Electronics. (2) Seminar, two hours; outside study, six hours. Preparation: successful completion of PhD major field examination. Seminar on current research topics in solid-state electronic devices, devices, information in semiconductors, optical and micro-wave electron devices and circuits, and electronic circuit theory and applications (Section 2). Students report on tutorial topic and on research topic in their dissertation area. May be repeated for credit. 2U grading.

230A. Detection and Estimation in Communication. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Applications of estimation and detection concepts in communication and signal processing. Random signal and noise characteristics by analysis and simulations; mean square (MS) and maximum likelihood (ML) estimations and algorithms; detection under ML, Bayes, and Neyman-Pearson (NP) criteria; signal-to-noise ratio (SNR) and error probability. Introduction to Monte Carlo simulations. 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 compression, transmission, processing, and learning. Topics include limits and algorithms for lossless data compression, connections to VLSI architecture, learning algorithms, and source estimation with applications to estimation and detection in communication, radar, speech, image, and array processing systems. Systolic and parallel algorithms and VLSI architectures for high-speed throughput real-time estimation, detection, decoding, and beamforming applications. Letter grading.


232B. Queuing Systems and Intelligent Transportation Networks. (4) Lecture, four hours; outside study, eight hours. Requisite: course 131A or equivalent. Modeling, analysis, and design of queueing systems; traffic management and design of intelligent transportation systems, communications networks, autonomous vehicles, and many other applications. Letter grading.


232E. Large-Scale Social and Complex Networks: Design, Modeling, and Implementation. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Modeling and design of large-scale complex networks, including social networks, peer-to-peer file-sharing networks, and social networks. Introduction to network science and network engineering. Modeling of characteristic topological features of complex networks, such as power laws and percolation threshold. Mining topology to design algorithms for various applications, such as e-mail spam detection, friendship recommendations, viral popularity, and epidemics. Introduction to network algorithms, computational complexity, and nondeterministic, polynomial-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 multi-carrier systems, multiple antenna 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 in 5G and 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. Key concepts, principles, and algorithms 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, multigagent learning, multiagent deep learning. Letter grading.

238A. Special Topics in Signals and Systems. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Key concepts, principles, and algorithms 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, multigagent learning, multiagent deep learning. Letter grading.

238BS. Seminar: Signals and Systems. (2 to 4) Seminar to be scheduled. Lecture, four hours. Requisite: course 238A. Topics to be announced. S/U or letter grading.

239A. Mathematical Foundations of Data Storage Systems. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A or equivalent. Development 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 storage systems, modern storage devices (e.g., Flash), rank modulation, rewriting codes, algorithms for data deduplication and synchronization, and redundant array of independent disks (RAID) systems. Letter grading.


2372A. Nonlinear Dynamic Systems. (4) (Same as Chemical Engineering M282A and Mechanical and Aerospace Engineering M272AA.) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisite: course 232A or Chemical Engineering M280A or Mechanical and Aerospace Engineering M270A. State-space techniques for studying solutions of time-invariant and time-varying nonlinear dynamic systems with emphasis on stability. Lyapunov theory (including converse theorems), invariant, center manifold theorem, input-to-state stability and small-gain theorem. Letter grading.

C234A. Neural Signal Processing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A, Mathematics 33A. Topics include fundamental properties of electrical activity in neurons; techniques of neural activity; spiking statistics and Poisson processes; generative models and classification; regression and Kaiman filtering; principal components analysis, factor analysis, and expectation-maximization methods. Letter grading. (Formerly scheduled with course C143A. Letter grading.

246. Foundations of Statistical Machine Learning. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 131A, Mathematics 33A. Introduction to foundations of statistical machine learning. Overview of several widely used learning algorithms including logistic and linear regression, support vector machines, ensemble learning methods, decision trees and nearest neighbor classifiers. Connections to information theory through probably approximately correct (PAC) learning, statistical trade-off, structural risk minimization, minimum description length (MDL), and universal learning. Introduction to representation learning with topics including unsupervised learning, clustering, (non-linear) dimensionality reduction, deep learning libraries in Python; recurrent 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 (GANs). Introduction to reinforcement learning. Letter grading.

C247. Neural Networks and Deep Learning. (4) Lecture, four hours; discussion, one hour; 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; traditional CNN architectures; deep learning; deep learning libraries in Python; recurrent neural network architectures; backpropagation through time, long short-term memory and gated recurrent units; variational autoencoders; generative adversarial networks; adversarial networks and training. Limited to graduate engineering students. Presentations of research topics by leading academic researchers from fields of systems, dynamics, and control. Students receive grades of pass/fail depending on the quality and rigor of the papers and results. S/U grading.

C250B. Electromechanical Systems (MEMS) Fabrication. (4) (Same as Bioengineering M250B and Mechanical and Aerospace Engineering M250B.) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course M153A. Advanced discussion of micromachining processes used...
to construct MEMS. Coverage of many lithographic deposition, and etching processes, 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 M282.) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to MEMS processes, design rules, fabrication processes, and actuation mechanisms, microsensors, and microactuators. Designing MEMS to be produced with both foundry and nonfoundry processes. Computer-aided design for MEMS. Design project required. Letter grading.

M255. Neuroengineering. (4) (Same as Bioengineering M260 and Neuroscience M260.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 32A, Physics 1B or 5C. Introduction to principles and techniques of bioelectricity and neural signal processing, recording, and stimulation. Topics include bioelectricity, electrophysiology (action potentials, local field potentials, EEG, ECoG), intracellular and extracellular recording, microelectrode technology, neural signal processing (neural coding, filtering, spike detection), spike sorting, stimulation artifact removal, brain-computer interfaces, deep-brain stimulation, and prosthetics. Letter grading.


M257. Nanoscience and Technology. (4) (Same as Mechanical and Aerospace Engineering M287.) Lecture, four hours; outside study, eight hours. Introduction to research and technology at the nanoscale. 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 knowledge and techniques in nano areas to understand scientific principles behind nanotechnology and learn how to create novel ideas in multidisciplinary nano areas. Letter grading.

260A. Advanced Engineering Electrodynamics. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisites: courses 101A, 101B. Advanced treatment of concepts in electrodynamics and their applications to modern engineering problems. Vector calculus in generalized coordinate system. Solutions of wave equation and special functions. Reflection, transmission, and polarization. Vector potential, duality, reciprocity, and equivalence theorems. Scattering from cylinder, half-plane, wedge, and sphere, including radial cross-section characterization. Green’s functions in electrodynamics and dyadic calculus. Letter grading.


261. Microwave and Millimeter Wave Circuits. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 163A. Rectangular and circular waveguides, microstrip, stripline, finline, and dielectric waveguide distributed circuits, with applications in microwave and millimeter wave integrated circuits. Substrate materials, surface wave phenomena, and methods for discontinuity effects. Design of passive microwave and millimeter wave circuits. 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 transmission lines, resonators, integrated circuits, solid-state device modeling, electromagnetic scattering, and antennas. Letter grading.

270. Applied Quantum Mechanics. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 170. Quantum mechanics, quantum field theory, the mathematics of quantum chemistry, quantum statistical mechanics, and quantum information, quantum algorithms. Letter grading.


274. Optical Communication and Sensing Design. (4) Lecture, three hours; outside study, nine hours. Requisite: course 273. Open-top introduction to physical layer design in fiber optic communication systems, including Telecom, Datacom and analog optical communication systems, fiber transmission characteristics, and optical modulation techniques, including direct and external modulation and the generation of direct and spectral-level components of fiber optic transceiver circuits, including preamplifier, quantizer, clock and data recovery, laser driver, and predistortion circuits. Letter grading.

275S. Micro- and Nanoscale Biosensing for Molecular Diagnostics. (4) Same as Bioengineering M273S. Lecture, four hours; discussion, one hour; outside study, seven hours. Covers state-of-art and emerging biosensing in context of molecular diagnostics. Students gain thorough understanding of interfaces between bioparticles, biofluids, and electronics. Topics include bio- sensor performance parameters, modes of detection, sample preparation challenges, microfluidics, and emerging wearable biosensing platforms, as well as protein and gene assays and DNA sequencing technologies. Letter grading.

279AS. Special Topics in Physical and Wave Electronics. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Special topics in one or more areas of physical and wave electronics, such as electromagnetics, 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.

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 electromagnetics, 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 grading.


279M. Seminar: Micro- and Nanoscale Biosensing for Molecular Diagnostics. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Similar to M275S, with additional topics in one or more aspects of physical and wave electronics, such as electromagnetics, microwave and millimeter wave circuits, photonics and optoelectronics, plasma electronics, microelectromechanical systems, solid state, and nanotechnology. Letter grading.

285A. Plasma Waves and Instabilities. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 101A, and M185 or Physics M122. Wave phenomena in plasmas described by macroscopic fluid equations. Microwave propagation, plasma oscillations, ion acoustic waves, cyclotron waves, hydrothermal waves, drift waves, electromagnetic waves, Helmholtz, universal, and streaming instabilities. Application to experiments in fully and partially ionized gases. Letter grading.

285B. Advanced Plasma Waves and Instabilities. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M185, and 285A or Physics 222A. Interactions of electromagnetic waves with plasmas: waves in inhomogeneous and bounded plasmas, plasma wave interaction with neutral gases, plasma reflectors, and fusion experiments. Letter grading.


293. Intellectual Property for Technology Entrepreneurs and Managers. (4) 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, offensive and defensive IP litigation considerations, trade secrets, opportunities and pitfalls in open source software, trademarking, managing copyright in increasingly complex content ecosys-
tems, and adopting IP strategies to globalized market
places. Includes case studies inspired by complex IP
questions facing technology companies today. S/U or
letter grading.

295. Academic Technical Writing for Electrical En-
ngineers. (3) Seminar, three hours. Designed for
electrical engineering PhD students who have completed
preliminary examinations. Students read models of
good writing and learn to make rhetorical observations
and writing decisions, improve their academic and
technical writing skills by writing and revising confer-
ence and journal papers, and practice writing for and
speaking to various audiences, including potential stu-
dents, engineers outside their specific fields, and non-
electrical engineers (colleagues outside field, policymakers,
etc.). Students write in variety of genres, all related to
their professional development as electrical engineers.
Emphasis on writing as vital way to communicate pre-
cise technical and professional information in distinct
contexts, directly resulting in specific outcomes. S/U
grading.

296. Seminar: Research Topics in Electrical Engi-
neering. (2) Seminar, two hours; outside study, four
hours. Advanced study and analysis of current topics
in electrical engineering. Discussion of current re-
search and literature in research specialty of faculty
member teaching course. May be repeated for credit.
S/U grading.

297. Seminar Series: Electrical Engineering. (1)
Seminar, 90 minutes; outside study, 90 minutes. Lim-
itated to graduate electrical engineering students.
Weekly seminars and discussion by invited speakers
on research topics of heightened interest. S/U grading.

298. Seminar: Engineering. (2 to 4) Seminar, to be
arranged. Limited to graduate electrical engineering
students. Seminars may be organized in advanced
technical fields. If appropriate, field trips may be ar-
ranged. May be repeated with topic change. S/U or
letter grading.

299. MS Project Seminar. (4) Seminar, to be ar-
ranged. Required of all MS students not in thesis op-
tion. Supervised research in small groups or individu-
ally under guidance of faculty mentor. Regular meet-
ings, culminating report, and presentation required.
Individual contract required; enrollment petitions avail-
able in Office of Graduate Student Affairs. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Sem-
inari, 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 course curriculum and instruction at UCLA. May
be repeated for credit. S/U grading.

495S. Teaching Preparation Seminar: Teaching and
Writing Pedagogies for Electrical Engineers. (2) (Same as English Composition M495K) Seminar,
two hours. Limited to graduate electrical engineering
students. Required of all departmental teaching assis-
tants (TAs). May be taken concurrently while holding a
TA appointment. Seminar on pedagogy and logistics of
being a TA with emphasis on student-centered teaching,
clear communication, and multimodal teaching and learning. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to
6) Tutorial, to be arranged. Limited to graduate electrical
engineering students. Petition forms to request enroll-
ment may be obtained from assistant dean, Graduate
Studies. Supervised investigation of advanced tech-

597A. Preparation for MS Comprehensive Exami-
nation. (2 to 12) Tutorial, to be arranged. Limited to
graduate electrical engineering students. Reading and
preparation for MS comprehensive examination. S/U
grading.

597B. Preparation for PhD Preliminary Examina-
tions. (2 to 16) Tutorial, to be arranged. Limited to
graduate electrical engineering students. S/U grading.

597C. Preparation for PhD Oral Qualifying Exam-
ination. (2 to 16) Tutorial, to be arranged. Limited to
graduate electrical engineering students. Preparation
for oral qualifying examination, including preliminary

598. Research for and Preparation of MS Thesis. (2
to 12) Tutorial, to be arranged. Limited to graduate
electrical engineering students. Supervised indepen-
dent research for MS candidates, including thesis pro-
spectus. S/U grading.

599. Research for and Preparation of PhD Disser-
tation. (2 to 16) Tutorial, to be arranged. Limited to
graduate electrical engineering students. Usually
taken after students have been advanced to candi-
dacy: S/U grading.

EMERGENCY MEDICINE
David Geffen School of Medicine
924 Westwood Boulevard, Suite 300
Box 951777
Los Angeles, CA 90095-1777

Emergency Medicine
310-794-0578

Gregory W. Hendey, MD, Chair

Overview
The Department of Emergency Medicine fo-
cuses on the teaching and management of di-
agnosis and treatment of unforeseen illness or
injury. The practice of emergency medicine in-
cludes the initial evaluation, diagnosis, treat-
ment, coordination of care among multiple pro-
dviders, and disposition of any patient requiring
expeditious medical, surgical, or psychiatric
care. A three- or four-week subinternship rota-
tion is offered to fourth-year medical students.
The length of training in the residency program is
four years.

For details on the Department of Emergency
Medicine and courses offered, see the depart-
ment 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 gradu-
ate degree programs.

Graduate Study
The Samueli School offers the Master of En-
gineering (MEng) degree (through the Engineer-
ing Executive Program), Master of Science
(MS) online degree in Engineering, and Engi-
nee (Eng) degree as schoolwide degrees. The
following area-specific online degrees have also
been established: MS in Engineering–Aerospace,
MS in Engineering–Computer Net-
working, MS in Engineering–Electrical, MS in Engi-
neering–Electronic Materials, MS in Engi-
neering–Integrated Circuits, MS in Engineer-
ing–Manufacturing and Design, MS in Engi-
neering–Materials Science, MS in Engineering–
Mechanical, MS in Engineering–Signal Pro-
cessing and Communication, and MS in Engi-
neering–Structural Materials.

A certificate of specialization is available in all
areas of specialization, except computer sci-
ence.

Graduate Majors

Engineering

Program Requirements
Official, specific degree requirements are de-
tailed in program requirements for UCLA grad-
uate degrees, available at the Graduate Divi-
sion 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

Program Requirements
Official, specific degree requirements are de-
tailed in program requirements for UCLA grad-
uate degrees, available at the Graduate Divi-
sion website. In many cases, more detailed
guidelines may be outlined in announcements,
other publications, and websites of the
schools, departments, and programs.

Engineering MS

Program Requirements
Official, specific degree requirements are de-
talled in program requirements for UCLA grad-
uate degrees, available at the Graduate Divi-
sion 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

Program Requirements
Official, specific degree requirements are de-
tailed in program requirements for UCLA grad-
uate degrees, available at the Graduate Divi-
sion website. In many cases, more detailed
guidelines may be outlined in announcements,
other publications, and websites of the
schools, departments, and programs.
Engineering Schoolwide Programs / 421

Engineering–Computer Networking MS

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Engineering–Materials MS

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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; four hours; discussion, one hour; outside study, three hours. Introduction to broader societal opportunities, impacts, and challenges associated with technology. Drawing from historical and contemporary examples, consideration of some of ethical, policy, and legal questions spurred by rapid technological change. Development of perspectives to take broad, contextualized view of role of technology in society. Letter grading.

10A. Introduction to Complex Systems Science. (5) Lecture; four hours; outside study, eight hours. How macroscopic patterns emerge dynamically from local interactions of large number of interdependent (often heterogeneous) entities, without global design or central control. Such emergent order, whose explanation cannot be reduced to explanations at level of individual entities, is ubiquitous in biology and human social collectives, but also exists in certain physical processes such as earthquakes and some chemical reactions. Complexity also deals with how such systems undergo sudden changes, including catastrophic breakdowns, in absence of external force or central influence. Key aspect of biological and social collectives is their nature as complex adaptive systems, where individuals and groups adjust their behavior to external conditions. In biological and social systems, complexity science goes beyond traditional mathematics and statistics in its use of multigent computational models that better capture these complex, adaptive, and self-organizing phenomena. 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, 32 hours. Designed primarily for new students to help them understand UCLA, its culture, structure, 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. Offered in summer only. P/NP grading.

21. Computing Immersion Summer Experience. (2) Seminar, 32 hours. Designed primarily for new students to help them understand UCLA, its culture, structure, 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. Offered in summer only. P/NP grading.

22. Summer Bridge Review for Enhancing Engineering Students. (2) Seminar, 32 hours. Designed primarily for new students to help them understand UCLA, its culture, structure, 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. 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 without prior experience, in process of soliciting, 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 smooth transition into research laboratory. P/NP grading.

25. Communicating Undergraduate Research Results. (2) Seminar, two hours; outside study, four hours. Designed to engage engineering students in process of communicating formal research. Students learn about various components required in publishing
Introduction to Engineering Disciplines. (4) Lecture, four hours; discussion, four hours; outside study, four hours. Recommended for students opting as a professional opportunity for freshmen students by exploring difference between engineering disciplines and functions engineers perform. Development of skills and techniques for careers through hands-on experience. Investigation of national need underlying current effort to increase participation of historically underrepresented groups in U.S. technological workforce. Letter grading.

Internship Studies in Engineering. (2 to 4) Tutorial, two to four hours. Limited to freshmen/sophomores. Internship studies course supervised by associate dean or designated faculty members. Further supervision 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. May not be applied toward major requirements. May be repeated for credit. Individual contract with associate dean required. P/NP grading.

Introduction to Engineering Design. (2) Lecture, one hour; laboratory, one hour; outside study, four hours. Introduction to engineering design while building teamwork and communication skills and examination of engineering majors offered at UCLA and of engineering careers. Four cases recommended for undergraduate design projects, preparation of short report describing projects, and presentation of results. Specific project details and relevant majors explored with instructor. May be repeated once for credit with topic or instructor change. Letter grading.

Introduction to Engineering Design: Digital Imaging. (2) Lecture, one hour; laboratory, one hour; outside study, four hours. Recommended for freshmen/sophomores. Introduction to the use of digital imaging technology from early chemical experiments to wide spread use of cell phone camera. Completion of hands-on design projects, preparation of short report describing projects, and presentation of results. Letter grading.

Introduction to Engineering Design: Internet of Things. (2) Lecture, one hour; laboratory, one hour; outside study, four hours. Recommended for outside students recommended for undergraduate Aerospace Engineering, Bioengineering, Computer Science, Electrical Engineering, and Mechanical Engineering majors. Introduction to engineering design while building teamwork and communication skills and examination of engineering majors offered at UCLA and of engineering careers. Hands-on experience with state-of-art Internet of things (IoT) technology offers students opportunities to rapidly develop innovative and inspiring systems that provide ideal introduction to computing systems and IoT applications specific to their major field. IoT technology has become one of the most important advances in technology history with applications ranging from wearable devices for healthcare to residential monitoring systems, natural resource protection and management, intelligent vehicles and transportation systems, robotics systems, and energy conservation. Completion of hands-on engineering design projects, preparation of short report describing projects, and presentation of results. Letter grading.

Introduction to Engineering Design: Electrocardiograms. (2) Lecture, 90 minutes; laboratory, 90 minutes; outside study, three hours. Students learn and use concepts and techniques in electrocardiography, design and analysis of electrocardiography, physics, microcontrollers, and computer programming. Students work in teams to design, construct, and test circuit boards capable of measuring human electrocardiograms by capturing data with microcontroller, with computer analysis and display. Students present their designs orally and in writing. Letter grading.

Introduction to Engineering Design: Go-Karts. (2) Lecture, 90 minutes; laboratory, 90 minutes; outside study, three hours. Introduction to basic concepts in aerospace engineering, computer-aided design, finite element analysis, machining, electrical motor performance, steering linkages, and general mechanical design. Students design and build two to four hour-long projects. Students present their designs orally and in writing. Letter grading.

Introduction to Engineering Design: Rockets. (2) Lecture, 90 minutes; laboratory, 90 minutes; outside study, three hours. Introduction to basic concepts in aerospace engineering, computer-aided design, finite element analysis, 3D printing, carbon fiber layup, telescoping, and general mechanical design. Students design and build two to four hour-long projects. Students present their designs orally and in writing. Letter grading.

Lecture, 90 minutes; laboratory, 90 minutes; outside study, three hours. Introduction to basic concepts in aerospace engineering, computer-aided design, finite element analysis, machining, electrical motor performance, steering linkages, and general mechanical design. Students design and build two to four hour-long projects. Students present their designs orally and in writing. Letter grading.

Letter grading.

Student Research Program. (1 to 2) Tutorial. May be repeated for credit. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

Principles of Nanoscience and Nanotechnology. (4) (Same as Materials Science 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 technologically important nano systems. New phenomena that emerge in very small systems (typically with feature sizes below few hundred nanometers) explained using basic concepts from physics and chemistry. Concepts include: photonic properties, electron transport, structural stability, self-assembly, templated assembly and applications of various nanostructures such as quantum dots, nanoparticles, quantum wires, multilayers and multilayers, carbon nanotubes. Letter grading.

Synthetic Biosystems and Nanosystems Design. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: 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 recombined to perform original functions in both intracellular and cell-free environments. Discussion of basic technologies and systems analysis that deal with dynamic behavior, noise, and uncertainties. Design project in which students are challenged to design novel biosystems and nanosystems for nontrivial task required. Letter grading.

Environmental Nanotechnology: Implications and Applications. (4) (Same as Civil Engineering M165.) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisites: course M101. Introduction to potential implications of nanotechnology to environmental systems as well as potential applications to environmental protection. Technical content includes three multidisciplinary areas: (1) physical, chemical, and biological properties of nanomaterials, (2) transport, reaction, and removal of contaminants in natural environmental systems, and (3) use of nanotechnology for energy and water production, plus environmental protection, monitoring, and remediation. Letter grading.

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.

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. Learn within firm strategy, external market strategy, and marketing and financing of high-technology innovation. Concepts include present value, future value, discounted cash flow, internal rate of return, 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.

Laboratory to Market 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. Learn within firm strategy, external market strategy, and marketing and financing of high-technology innovation. Concepts include present value, future value, discounted cash flow, internal rate of return, 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.

Product Strategy. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Described for juniors/seniors. Introduction to current management concept of product development. Topics include product strategy, product platform, and product lines; competitive strategy, vectors of differentiation, product pricing, first-to-market versus fast follower; growth strategy, growth through acquisition, and new ventures; product portfolio management. Case studies, class projects, group discussions, and lectures by speakers from industry. Letter grading.

Statistics for Management Decisions. (4) Lecture, four hours; outside study, eight hours. Manage- ment covers all aspects of applied statistics. students always take place in environment characterized by uncertainty. Probability provides mathematical framework for understanding how to make rational decisions when outcomes of actions are uncertain. Focus on probability of problem of reasoning from sample data, encompassing estimation, hypothesis testing, and regression analysis. Discussion of specific analytical techniques needed in later courses in program. Development of basic understanding of statistical analysis. Letter grading.

Entrepreneurship for Scientists and Engineers. (2) Seminar; two hours; outside study, four hours. Recommended for graduate students and graduate students. Identification of business opportunities and outline of basic requisites for viable business plans, followed by specific topics related to securing basic assets and resources needed to execute those plans. P/NP grading.

Entrepreneurship and Venture Initiation for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Not open to students with credit for Management M177. Focus on process and methodology for starting new venture. Introduction to entrepreneurship from perspective of entrepreneur. Examination of core concepts and frameworks on idea generation, market analysis, fund-raising, corporate structures, and financial accounting for entrepreneurial endeavors. Focus on fundamentals of building business, and also emphasis on inherent needs of entrepreneurs, and emphasis on understanding the need for constant learning on this subject. Letter grading.
163. Entrepreneurship and New Product Development for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to juniors/seniors. Not open to students with credit for Management 163. Designed to deepen understanding of innovative processes, relationships creating new products. Inquiry into why, what, and how of making new products. New products are essential to any business (start-up or well-established) and their development. Understanding successful products requires various types of innovation. Availability of digital technologies and global outcomes have accelerated change of these innovations. Letter grading.

180. Engineering of Complex Systems. (4) Lecture, four hours; discussion, three hours; outside study, six hours. Designed for junior/senior engineering majors. Holistic view of engineering discipline, covering life cycle of engineering, processes, and techniques used in industry today. Multidisciplinary systems engineering perspective in which aspects of electrical, mechanical, and software engineering are incorporated. Three specific case studies in communication, sensor, and process systems included to help students understand these concepts. Special attention paid to link material covered to engineering curriculum objectives, to help students integrate and enhance their understanding of knowledge already acquired. Motivation of students to continue their learning and reinforce lifelong learning habits. Letter grading.

181EW. Ethical Negotiation in Technology. (4) Lecture, five hours; discussion, three hours; outside study, four hours. Required: English Composition 3. Not open for credit to students with credit for course 182EW, 183EW, or 185EW. Focuses on negotiation and complex ethical issues that emerge as result in areas such as biotechnology, information technology, nanotechnology, and energy technology. 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 and ethical issues. Satisfies engineering writing requirement. Letter grading.

182EW. Technology and Society. (4) Lecture, four hours; discussion, three hours; outside study, five hours. Required: English Composition 3. Not open for credit to students with credit for course 182EW, 183EW, or 185EW. Places engineering in broader societal context through examination of some of key ethical, legal, and regulatory issues and frameworks relevant to development of engineering technology products and services. Historical examination of ethical and legal frameworks generally and in relation to technology; Exploration of series of specific contemporary technical and social issues; examination of ethical challenges and complex ethical issues that emerge as result in these areas. Issues, values, and society's role in regulating technology. Case studies of major ethical issues. Letter grading.

188. Special Courses in Engineering. (4) Seminar: four hours; discussion, two hours; outside study, six hours. Enforced requisite: English Composition 3 or 3E. Not open for credit to students with credit for course 181EW. 182EW, 183EW, or 185EW. Limited to junior/senior engineering students. Focuses on negotiation and complex ethical issues that emerge as result in areas such as biotechnology, information technology, nanotechnology, and energy technology. 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 and ethical issues. Satisfies engineering writing requirement. Letter grading.

191. Seminar Series in Engineering Research. (1) Seminar, one hour. Seminar series in cutting-edge engineering research. Series 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. Offered to 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.

204. Trusted Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Special topics. Emphasis on research and writing within engineering discipline. Vehicles into which students can begin their own research projects. Letter grading.
Data Acquisition (SCADA), and autonomous vehicles. Operational processes use organization’s resources to transform inputs into goods and utilizes them to provide service, or does both. Conceptual framework and set of analytical tools provided 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 performance. Letter grading.

211. Financial Management. (4) Lecture, four hours; outside study, eight hours. Introduction to concepts reflecting material generally covered in certain MBA core and elective courses. Integration of both theory— 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. Prior knowledge of legal doctrines or materials not required. Intellectual property law is not just topic for lawyers. Engineers who have design responsibilities must understand how legal system in some instances protects their designs and in other instances stands as obstacle to what would otherwise be most efficient design choice. Engineers with management responsibilities must understand intellectual property law implications for everything from pricing to strategic partnerships. Examination of intellectual property law, not only by learning fundamental rules associated with patent, copyright, trademark, and trade secret protection, but by studying business strategies that these rules support. Examples and case studies to be taken from across content, technology, and pharmaceutical industries. Letter grading.

213. Data and Business Analytics. (4) Lecture, four hours; outside study, eight hours. Coverage of wide variety of spreadsheet tools that can be used to solve business and engineering problems, with emphasis on mastery of Excel spreadsheet modeling as integral part of analytic decision making. Managerial models include data modeling, regression and forecasting, linear programming, network and distribution models, integer programming, nonlinear programming, and 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 communicatively in workplace, with focus on business presentation skills, visual and oral persuasion skills, and interpersonal communication skills. Letter grading.

215. Entrepreneurship for Engineers. (4) Lecture, four hours; outside study, eight hours. Limited to graduate engineering students. Topics in starting and developing new enterprises and interested 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 online MS program. Project course that satisfies UCLA final comprehensive examination requirement of MS online degree in Engineering. Project is completed under individual guidance from UCLA Engineering faculty member and incorporates advanced knowledge learned in MS program of study, 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.

470A-470D. Engineer in Technical Environment. (3 each) Lecture, three hours; outside study, six hours. Limited to Engineering Executive Program students. Theory and application of quantitative methods in analysis and synthesis of engineering systems for purpose of making management decisions. Optimization of output with respect to dollar costs, time, material, energy, information, and manpower. Case studies and individual projects. S/U or letter grading.

471A-471B-471C. Engineer in General Environment. (3–3–1.5) Lecture, three hours (courses 471A, 471B) and 90 minutes (course 471C). Limited to Engineering Executive Program students. Influences of human relations, laws, social sciences, humanities, and fine arts on development and utilization of natural and human resources. Integration of technology and society past, present, and future. Change agents and resistance to change. S/U or letter grading (471A grading): In Progress (471B) and S/U or letter grading (471C grading).

473A-473B. 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. Language of business for engineering executive. Accounting, finance, business economics, business law, and marketing. Laboratory in organization and management problem solving. Analysis of actual business problems of firm, community, and nation, provided through opportunities and participation with California business corporations and government agencies. In Progress (472A, 472C) and S/U or letter grading (credit to be given for work on business courses 472B and 472D).

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. Problem area of modern industry or government is selected as class project, and its solution is synthesized using quantitative tools and methods. Project also serves as laboratory in organization for goal-oriented technical group. In Progress (473A) and S/U (473B) grading.

495A. Teaching Assistant Training Seminar. (4) Seminar; four hours; outside study, eight hours. Preparation: appointment as teaching assistant. Limited to graduate engineering students. Seminar on communication engineering principles, concepts, and methods, preparation, organization of material, presentation, use of visual aids, grading, advising, and rapport with students. S/U grading.

M496L. Teaching Preparation Seminar: Writing for Engineers. (4) Same as English Composition M496L) Seminar, two and one half hours; outside study, nine and one half hours. Limited to graduate students. Required of all teaching assistants for Engineering writing course not exempt by appropriate departmental or program training. Training and mentoring, with 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.

M495J. Supervised Teaching of Writing for Engi- neers. (2) Same as English Composition M495J Seminar, one hour; outside study, five hours. Enforced requisites: course M495L. Required of all teaching assistants in their initial term of teaching 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.
The Department of English is committed 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 English can provide excellent preparation, including law, administration, business, teaching, and media, and entertainment.

The English major is a designated capstone major. 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
- Demonstrated oral and written communication skills
- Demonstrated defense-of-scholarship skills

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 requisite for the next course).

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.

Undergraduate Majors

English BA
The Bachelor of Arts degree in English has an optional concentration in creative writing for students who have been admitted to and completed three creative writing workshops in a single genre of either poetry or short story. Students 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 major. 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.
course 150A through 157, indicated sections of 159 or 159R or 166A. (c) literatures in English, 1700 to 1850—course 160A through 165C, 166B through 168, 176, or indicated sections of 169 or 169R, 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, 176, 179, or 179R; (2) three breadth courses, one from each 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, 112D, 128, 130 through 135, 154, 157, 163B, 164D, 165A, 166A, 166B, 176, 4 indicated sections of 149, 159, 159R, 169, 169R, 179, or 179R, (c) general 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, 159R, 169, 169R, 179, or 179R, and (d) creative writing—courses 136, 137, M138; (3) two elective courses (two sections of English 110B may fulfill one elective; 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.

Policies

Each course applied toward requirements for the major must be 4 or 5 units and be taken for a letter grade.

Extra-Departmental Requirement in Foreign Literature or Foreign Language

All English majors must have completed 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 foreign literature, including foreign literature in translation (see course listings 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 IGETC program may satisfy the departmental requirement with five foreign literature in translation courses. The courses may be taken on a P/NP grading basis.

Creative Writing Concentration

The creative writing concentration consists of the same requirements as the major, with the exception that one breadth course must be taken from the creative writing area (English 136, 137), and both electives must be creative writing workshops (courses 136, 137). All other requirements remain the same. English M138 cannot satisfy any breadth or workshop requirements in the concentration and may only be applied toward the basic English major. Students may declare creative writing as a concentration only after they have completed three creative writing workshops in a single genre of either poetry or short story. Students may not enroll in more than one workshop (course 136, 137, or M138) per term or in more than two workshops with the same instructor. No student may take for credit more than three poetry or short story workshops. Students planning to select this program should contact the departmental counselor for more details.

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

All honors students are required to take one theory course from English 120 through 128 (may fulfill one of three required breadth courses) no later than winter quarter of the junior year. 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. In spring quarter of the junior year, students must take course 191H (may fulfill one of two electives for the major). During fall and winter quarters of the senior year, they take courses 198A and 198B, in which they write a thesis under the direction of a faculty member (198B may fulfill the second of two electives for the major). The thesis determines whether they receive highest honors, honors, or no honors.

American Literature and Culture BA

Students are expected to meet with the undergraduate 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 English major and American Literature and Culture major are designated capstone majors. 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

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.

Policies

A grade of C or better is required in each course.

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 two years of one foreign language or a combination of foreign language and foreign literature courses.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

M191B, M191C, or, when treating American topics, 180, 181A, 181B, 182E, 182F, 184, M191D, 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.

**Policies**
Each course applied toward requirements for the major must be at least 4 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 department counselor.

Requirements
All honors students are required to take one theory course from English 120 through 128 (may fulfill one of three required breadth courses) no later than winter quarter of the junior year. 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. In spring quarter of the junior year, students must take course 191H (may fulfill one of two electives for the major). During fall and winter quarters of the senior year, they take courses 198A and 198B, in which they write a thesis under the direction of a faculty member (198B may fulfill the second of two electives for the major). The thesis determines whether they receive highest honors, honors, or no honors.

**Undergraduate Minors**

**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 completed English 4W. 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 M191E, 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).

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, 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.

**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 literatures 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 other arts) 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 1W, 4W, 18A, 18B, 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, 166P, Art History 133D, 133E, C145A, Chicana/o and Central American Studies M144, M183, Food Studies M170XP, Geography 130, 136, Honors Collegium 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 116, M131, 154, 176, Environment M111, M125, M126, M131, M133, 134, 150, M135, 136, M161, 163, M164, 166, M167, or Environmental Health Sciences 100, (4) one course selected from English 184, 195CE, 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 online explaining why they want to declare the minor, and how they expect it to relate to their professional lives. For more information, contact the Writing Programs adviser, 146 Kaplan Hall, 310-206-1145.

The Minor
Required Lower-Division Courses (45-30 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, 110W, M191P (or Comparative Literature M191P), M192 (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 non-fiction 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, Digital Humanities 150, Ecology and Evolutionary Biology C179, Education 122, Film, Television, and Digital Media C144, Honors Collegium 101B, 101C, Life Sciences 110, M192A, Music Industry 102, 104A, 110, 122, Dance C181; 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.

English
Lower-Division Courses
4WH. Critical Reading and Writing (Honors). (5) Lecture, four hours; four hours in writing centers required. 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). (5) Formerly numbered 4WXS. 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 component includes meaningful work with off-campus agency selected by instructor. Satisfies Writing II requirement. Letter grading.
10A. Literatures in English to 1700. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4WH. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.
10B. Literatures in English, 1700 to 1850. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4WH, 10A. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.
10C. Literatures in English, 1850 to Present. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4WH, 10A, 10B. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.
11. Introduction to American Cultures. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: English Composition 3, English 4W or 4WH. Exploration of questions of what is meant by America, and hence what is meant by American culture and American studies. Addresses concepts of origins (real or imagined beginnings of cultural formation), identities (narratives of people and places), and media (creative process as manifest in aesthetic forms, artistic movements, and information systems). 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 Creative Writing. (4) Lecture, four hours; discussion, one hour (when scheduled). Preparation: submission of creative or expository writing samples to screening committee. Enforced requisite: satisfies Entry-Level Writing requirement. English Composition 3. Not open for credit to students with credit for course 20W. Designed to introduce fundamentals of creative writing. Emphasis either on poetry, fiction, or drama, depending on wishes of instructor(s) during any given term. Readings from assigned texts and weekly writing assignments required. P/NP or letter grading.
20W. Introduction to Creative Writing. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: satisfaction of Entry-Level Writing requirement. English Composition 3. Not open for credit to students with credit for course 20. Designed to introduce fundamentals of creative writing and writing workshop experience. Emphasis on poetry, fiction, drama, or creative nonfiction, depending on wishes of instructor(s) during any given term. Readings from assigned texts, weekly writing assignments (multiple drafts and revisions), and final portfolio required. Satisfies Writing II requirement. Letter grading.
M30. Environmental Literature and Culture. (5) (Same as Environment M30.) 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 (Service Learning). (5) (Same as Environment M30SL.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Environmental Literature and Culture. Not open for credit to English majors or students with credit for any course in the 140 series. Production of works of creative writing and environmental photography, poetry, and visual art; emphasis on developing student skills as professional writers and environmental advocates. Satisfies Writing II requirement. P/NP or letter grading.
M40. Structure of English Words. (5) (Same as Linguistics M40.) Lecture, four hours; discussion, one hour. Introduction to structure of English words of classical origin, including most common base forms and rules by which alternate forms are derived. Students may expect to achieve substantial enrichment of their vocabulary while learning about etymology, semantic change, and abstract rules of English word formation. P/NP or letter grading.
M50. Introduction to Visual Culture. (5) (Same as Film and Television M50.) Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Study of how visual media, including advertising, still and moving images, and narrative films, influence contemporary aesthetics, politics, and knowledge. P/NP or letter grading.
70. Medievalisms: Medieval Literature and Contemporary Culture. (5) Lecture, four hours; discussion, one hour. Requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any course in the 140 series. Introduction to medieval texts juxtaposed with modern texts and media to analyze how and why the medieval (in form of crusade, quest, romance, world-construction, etc.) is continually reproduced and transformed in large scale popular productions, novels, film, and television. Special focus on medieval works in comparison to analysis of 20th- and 21st-century works may include Beowulf, Sir Gawain and the Green Knight, Le Mort d’Arthur, Lord of the Rings, Game of Thrones, and Harry Potter. P/NP or letter grading.
80. Major American Authors. (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 course in 170 series. Introduction to chief American authors, with emphasis on poetry, nonfiction prose, and short fiction of such writers as Poe, Dickinson, Emerson, Whitman, Twain, Frost, and Hemingway. P/NP or letter grading.

Graduate Major
English MA, CPhil, PhD
Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
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 in 170 series. Development, with emphasis on form, of American novel from 1830 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. Requisites: English Composition 3, English 4W or 4HW or 4WS, 11. Content varies. Introductory study of diverse peoples, histories, and ideas of American cultures.

88A-88Z. Lower-Division Seminars: Special Topics in English. (Each) Seminar, three hours. Limited to 20 students. Content varies; see departmental counselor for information. P/NP or letter grading. 88A. Medieval Literature; 88B. Renaissance Literature; 88C. 17th-Century Literature; 88D. 18th-Century Literature; 88E. Romantic Literature; 88F. Victorian Literature; 88G. 20th-Century British Literature; 88H. Colonial American Literature; 88I. 19th-Century American Literature; 88J. 20th-Century American Literature; 88K. History of English Language; 88L. Folklore and Mythology; 88M. Literature and Society; 88N. Service Learning seminars; fieldwork, three hours. Textual analysis, analytical discussion, and written assignments about works of literature that raise issues relevant to contemporary society. Service learning component. Prerequisites: completion of 10 units of work with agency involved in issues of public advocacy and social justice.

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 seminar 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. Shakespeare. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Recommended for instruction of credential candidates. Study of critical issues (metrics, diction, figurative language, symbolism, irony and ambiguity, form and structure) and aesthetic issues, including evaluative criteria, followed by close critical study of selected works. Enforced requisite: registration in scheduled section of representative poems. P/NP or letter grading.

91A. Introduction to Poetry. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Recommended for instruction of credential candidates. Study of critical issues (metrics, diction, figurative language, symbolism, irony and ambiguity, form and structure) and aesthetic issues, including evaluative criteria, followed by close critical study of selected works. Enforced requisite: registration in scheduled section of representative poems. P/NP or letter grading.

91B. Introduction to Drama. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to representation of real life 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 fiction and its organization to present day. Analysis of short and long narratives and of critical issues such as plot, characterization, setting, narrative voice, realism and nonrealistic forms. P/NP or letter grading.

91D. Introduction to Graphic Fiction. (5) Lecture, three hours; discussion, one hour (when scheduled). 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 problem of appropriateness of comics for serious cultural topics. P/NP or letter grading.

97H. Honors Research Seminar for Freshmen and Sophomores. (4) Seminar, three hours. Enforced requisite: English Composition 3 or 4W. Recommended for lower-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; history of books. Specific literatures vary with instructor. May not be repeated for credit. P/NP or letter grading.

99. Study Abroad Research Program, (1 to 3) 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 not count this course toward minimum of 12 units (excluding this course), individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Ways of Reading Race. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Introduction to interdisciplinary study of race and ethnicity, with primary focus on literature. Through examination of institutions that form understandings of race, race-making, ideas of class, gender, and labor—interrogation of how we come to think of ourselves and others as having race, and effects of such racializing thinking. Course is not about any particular race group, but highlights creation of ethnic categories and their effects on cultural production. P/NP or letter grading.

M101A. Premodern Queer Literatures and Cultures. (5) (Same as Gender Studies M105A 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 before circa 1750. 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 M105B 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 writers as 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. (5) (Same as Gender Studies M105C 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, specifically literature, produced by queers after Stonewall rebellion in New York in 1969, widely regarded as origins of gay liberation movement and incorporating secondary criticism; critical and textual studies; history of books. Specific literatures vary with instructor. May not be repeated for credit with topic or instructor change. P/NP or letter grading.

M101D. Studies in Queer Literatures and Cultures. (5) (Same as Gender Studies M105D and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: 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.

M102A. Historical Survey of Asian American Literature. (5) (Same as Asian American Studies M112A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 4W. Survey of Asian American literature either produced from or thematically reflecting pre-1980 period. Issues include immigration, diaspora, gender, class, race, sexual orientation, disability, ethnicity, gender formation, interethnic dynamics, and social movement. Works by such authors as Edith Eaton, Yoshiko Tsukius, Carole Bulosan, Hisaye Yamamoto, John Okada, Frank Chin, and Maxine Hong Kingston. P/NP or letter grading.

M102B. Contemporary Asian American Literary Issues and Criticism. (5) (Same as Asian American Studies M112B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 4W. Survey of post-1980 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, model minority and Orientalism, and meat versus rice, in study of novels, poetry, performance, memoirs, and critics. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M103. Studies in Disability Literatures. (5) (Same as Disability Studies M103.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 4W. Survey of modes of disability in literature, with specific emphasis on thematic concerns. Topics may include introduction to disability studies, gender, masculinity, and femininity, disability narratives, etc. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M104A. Early African American Literature. (5) (Same as African American Studies M104A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 4W. 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, Charlotta Chester, Booker T. Washington, and Pauline Hopkins. P/NP or letter grading.

M104B. African American Literature from Harlem Renaissance to 1960s. (5) (Same as African American Studies M104B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 4W. Survey of 20th-century African American literature from New Negro Movement of post-World War I period to 1960s, including oral materials (ballads, blues, speeches) 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 African American Studies M104C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 4W. 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, Audre Lorde, Paula Marshall, and Ernest Gaines. P/NP or letter grading.

M104D. Contemporary African American Literature. (5) (Same as African American Studies M104D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 4W. Introductory survey of African American literature from 1980s to present covering range of genres, with emphasis on diversity of perspectives and styles that have emerged over past three decades. Authors may include Toni Morrison, August Wilson, Octavia Butler, Anna Deavere Smith, June Jordan, Charles Johnson, and Rita Dove. P/NP or letter grading.
106. Studies in Native American and Indigenous Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of Native American and/or transnational indigenous literature. Topics may include oral traditions and histories, decolonization and sovereignty, identity and place, comparative perspectives, and multiple genres and forms such as novel, poetry, drama, visual art, dance, song, and film. May be repeated for credit with topic or instructor change. P/NP or letter grading.

107A. Studies in Women's Writing. (5) Same as Gender Studies M107A. Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Focus 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.

107B. Studies in Gender and Sexuality. (5) Same as Gender Studies M107B and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M107B. Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Examination of gender and cultural production through lenses of gender and sexuality. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic and include other intersectional vectors of identity. May be repeated for credit with topic and ethnicity. May be repeated for credit with topic or instructor change. P/NP or letter grading.

108. Interracial Encounters. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Study of literary, cultural, and/or cinematic texts produced by people from different ethnic and religious backgrounds and providing comparative cultural perspectives on living in a multicultural society. May be repeated for credit with topic or instructor change. P/NP or letter grading.

109. Topics in Race, Ethnicity, Gender, and Sexuali- ty Studies. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. Depending on instructor, emphasis may be regional, cultural, race, or thematic. May be repeated for credit with topic or instructor change. P/NP or letter grading.

110A. Writing in English Major: Analytical. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 4W (or 4HW or 4WS), English Composition 3. Open only to English major transfer students. Not open for credit to students with credit for course 110A. Focus on writing as adaptable, multifaceted professional, as well as personal, rewriting, and argument; minimum 15 to 20 pages of writing required. May not be repeated for credit. P/NP or letter grading.

110B. Writing in English Major: Adjunct. (2) Seminar, two hours. Students must be concurrently enrolled in affiliated English lecture course (consult Schedule of Classes for courses so designated). Focus on writing as process, rewriting, and argument. Minimum 15 to 20 pages of writing required. May not be repeated for credit. P/NP or letter grading.

110C. Public Readers, Public Writers: Writing about Books for 21st-Century Audience. (5) Lecture, four hours. Enforced requisite: course 4W (or 4HW 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, rewriting, and argument; minimum 15 to 20 pages of writing. May not be repeated for credit. P/NP or letter grading.

110E. Writing in English Major: Advanced Essay. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 4W (or 4HW or 4WS), English Composition 3. Enroll- ment by consent of instructor. Workshop in writing of advanced literary analyses; study of methods and technologies of developing comprehensive arguments. Minimum 15 to 20 pages of revised writing required. May not be repeated for credit. P/NP or letter grading.

110P. Writing in English Major: Pre-Professional Portfolio. (5) Seminar, four hours; field placement, three or four hours. Enforced requisite: course 4W, English Composition 3 or equivalent. Limited to American Literature and Culture and English majors. Writing for professionals. Students review written mate- rials completed in previous English courses and develop new documents, projects, and writing samples relevant to success in variety of professions including postgraduate study. Culminates in writing portfolio of each student’s work. May not be repeated for credit. P/NP or letter grading.

110T. Writing in English Major: Transfer Students. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 4W (or 4HW or 4WS), English Composition 3 (or 3D or 3DS or 3SL). Focus on writing as adaptable, multifaceted professional, as well as personal, rewriting, and argument; minimum 15 to 20 pages of writing required. May not be repeated for credit. P/NP 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, philo- sophical, and theological themes. P/NP or letter grading.


111C. Topics in Biblical Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Recommended: course 111A or 111B. Study of topics in Hebrew Bible and/or New Testament, with attention to particular literary themes, motifs, genres, and modes of interpretation. Discussion of influence of Bible on culture, current events, or individual society. May be repeated for credit with topic or instructor change. P/NP or letter grading.

112A. Oral Tradition. (5) Lecture, four hours; dis- cussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of myth, dramatic origins, oral epic, folktale, and ballad. P/NP or letter grading.

112B. Celtic Mythology. (5) Lecture, four hours; dis- cussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of early tex- tual materials pertaining to Celtic peoples and their stories, with emphasis on techniques of mythological narration across cultures. P/NP or letter grading.

112C. Survey of Medieval Celtic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Academic study of the major cultural and litera-
3H. Knowledge of Irish or Welsh not required. General course dealing with Celtic literature from earliest times to 14th century. P/NP or letter grading.

112D. Celtic Folklore. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Folkloric traditions of modern Ireland, Scotland, and other Celtic countries, with attention to colonial and postcolonial issues and folkloristic methods. P/NP or letter grading.

112E. Food and Fantasy in Irish Tradition and Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Focus on traditional foodways and their role in Irish oral and literary traditions, from medieval to modern times. P/NP 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 grammatical, lexical, and phonetic condition of English language from Indo-European time to present. P/NP or letter grading.

113B. Introduction to Structure of Present-Day English. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Exploration of vocabulary of modern English. P/NP or letter grading.

114. Lyric Histories. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Exploration of lyric poetry in variety of literatures. Topics may include historical evolution of aesthetic forms, changing concepts of dramatic personae, matter of literary influence, and complex relationship of individual lyric speakers with their social and historical contexts. May be repeated for credit with topic or instructor change. P/NP 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 styles and genres as sentimental literature, sensational fiction, dime novels, crime stories, pornography, science fiction, supernatural tales, Hollywood novels, and other kinds of mass literary expression. P/NP or letter grading.

115B. British Popular Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Readings in popular genres, from 18th-century broadsides to contemporary novels. Examination of social and cultural aspects of literature. P/NP or letter grading.

115C. Literature for Children and Adolescents. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of historical backgrounds and development of types of children’s literature, folklore and oral tradition, criticism, illustration, and bibliography and/or analysis and evaluation of literature intended mainly for students in junior and senior high schools. P/NP or letter grading.

115D. Detective Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of British and American detective fiction and literature of detection. P/NP or letter grading.

115E. Science Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of science fiction and speculative literatures. P/NP or letter grading.

M115XP. Community-Based Studies of Popular Literature. (5) (Formerly numbered M115SSL.) (Same as Community Engagement and Social Change M1100XP) Lecture, four hours; discussion, one hour (when scheduled); fieldwork, two hours. Enforced requisite: English Composition 3. Service-learning course that examines history and development of one or more genres of English literature with attention to diverse communities of readers and writers and formation of civil society. Topics vary and may include children'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 selected in advance by instructor. May be repeated for credit with topic change. P/NP or letter grading.

116A. Experimental Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of novels and short stories that employ playful or experimental practices in language, narrative, hybridity (genre, medium), blurring of tradition and convention, such as binding and book design. Focus generally on texts from 20th century and later, but can include readings dating to 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, animated and interactive poetry, multimedia works, 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. Study of literatures in English in relation to other disciplines such as sciences, history, politics, philosophy, music, photography, visual studies, psychology. May be repeated for credit 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 relationship 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. Topics vary and may include not only English literature, but transnational association. 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 analysis, word and image, image and culture, 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. Study of literature from environmental perspectives, including eco-critical and interdisciplinary consideration of issues such as environmental justice, animal studies, food studies, gender studies, urban and postcolonial ecologies, climate change, climate change and geopolitics, 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. Study of food and its role in society, preparation and consumption of food, and the relationship of food to health and the environment. 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 village or cosmopolitan hub, segregated dystopian utopia or postmodern future, and impact of exile, tourism, and migration in making of cities. Service learning component includes meaningful work with local nonprofit organizations selected in advance by instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

119XP. Literary Cities—Service Learning. (5) (Formerly numbered 119SSS) Lecture, four hours; discussion, one hour (when scheduled); fieldwork, two hours. Enforced requisite: English Composition 3. 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 village or cosmopolitan hub, segregated dystopian utopia or postmodern future, and impact of exile, tourism, and migration in making of cities. Service learning component includes meaningful work 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, Burke, Machiavelli, 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 requisite: courses 10A, 10B, and 10C, or 11 and 87. Investigation of some dominant trends in 19th- and 20th-century aesthetics, critical theory, and interpretation. Topics may include Marxism, psychoanalysis, feminist, poststructuralism, feminism, and postcolonialism. May not be repeated for credit. P/NP or letter grading.

122. Keywords in Theory. (5) Lecture, four hours; discussions, one hour (when scheduled). Enforced requisite: 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, this course investigates the theoretical concepts, or keywords, that have emerged from variety of intellectual disciplines to shape literary and cultural studies. Consideration of lexical development of such keywords; how they alter and enrich assumptions about literary quality, readership, and how they engender interpretive paradigms and methodologies for study of literature and culture. 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). Enforced requisite: courses 10A, 10B, and 10C, or 11 and 87. Recommended: courses 120, 121. Exploration of theories of history and historicism that offer productive approaches to literary texts. Investigation of how theorists negotiate between abstract 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). Enforced requisite: courses 10A, 10B, and 10C, or 11 and 87. Recommended: courses 120, 121. Examination of relationships between literary and religious practices and traditions. Topics may include legacies of monotheism, theologies of asceticism, sacred and secular traditions, as well as history of allegory and theological approaches to reading. Selected topics may address literary applications of religious categories as treated in cultural, anthropological, and/or historical theoretical contexts. 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. Recommended: courses 120, 121. Examination of literary, philosophical, religious, and/or psycholog-
ical texts that theorize causes, effects, political justifications, cultural sublimations, and literary uses and critiques of violence. P/N or letter grading.

M126. 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. Recommended: one course from 120, 121, Gender Studies 102, 103, or 104. Investigation of key concepts and debates in feminist and queer theory. Emphasis will be on the historical, cultural, and political, and ideological issues that followed from transatlantic movement of people, ideas, commodities, and cultural artifacts. In addition to literature, class readings may include texts from Africa, Caribbean, Mexico, South America, Spain, and other parts of Europe. May be repeated for credit with topic or instructor change. P/N or letter grading.

127. Performance, Media, and Cultural Theory. (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 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, postcolonial studies, and film theory. May be repeated for credit with topic or instructor change. P/N or letter grading.

128. Postcolonial and Transnational Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, or 10C. Recommended: courses 130, 131, Exploration of methodological, aesthetic, and theoretical implications of postcolonial and transnational approaches to study of literature and culture. Topics may include theories of subaltern, orientalist, feminist, and/or indigenous representation and histories and may address representational issues of national sovereignty in wake of globalization. May be repeated for credit with topic or instructor change. P/N or letter grading.

129. Topics in Genre Studies, Interdisciplinary Studies, etc. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, and 10C. Recommended: courses 120, 121. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. Dependent on the instructor, emphasis may be historical, regional, national, comparative, or thematic. May be repeated for credit with topic or instructor change. P/N or letter grading.

130. Introduction to Postcolonial Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, or 10C. Introduction to major themes and issues in postcolonial literature, with focus on contemporary literary and cultural production and written works produced after decolonization, often 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/N or letter grading.

131. Studies in Postcolonial Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, and 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, Caribbean contact zones, or literatures of indigenous Pacific. May be repeated for credit with topic or instructor change. P/N or letter grading.

132. Culture and Imperialism. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Exploration of relationship between culture and imperialism through lenses of imperial texts to raise questions about the power and knowledge. Discussion of shifting patterns and paradigms of imperial rule, including way both metropolitan and peripheral or colonial spaces were transformed. Emphasis may be on particular historical period or may adopt 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/N 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. Examination of how critical frameworks of migration, transnationalism, and globalization, and tradition and modernity frame 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 relation to representations of mobility. Genres may include epic, romance, travel narrative, novel, and autobiography. May be repeated for credit with topic or instructor change. P/N 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. Exploration of relationship between culture and imperialism through lenses of imperial texts to raise questions about the power and knowledge. Discussion of shifting patterns and paradigms of imperial rule, including way both metropolitan and peripheral or colonial spaces were transformed. Emphasis may be on particular historical period or may adopt 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/N or letter grading.

135. Literature of Americas. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Survey of literatures of Americas, with emphasis on complex ways in which letters of North America, Central America, South America, and Caribbean. May be repeated for credit with topic or instructor change. P/N or letter grading.

136. Creative Writing: Poetry. (5) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3D or 3DS or 3SL. Strongly recommended: course 130. Survey of how critical frameworks of migration, transnationalism, and globalization, and tradition and modernity frame 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 relation to representations of mobility. Genres may include epic, romance, travel narrative, novel, and autobiography. May be repeated for credit with topic or instructor change. P/N or letter grading.

137. Creative Writing: Short Story. (5) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H, English 4W or 4HW. Weekly exercises in writing of poetry, with practice in standard forms and meters and instructor, as well as classroom discussion based on student work. Enrollment in more than one section per term not permitted. May be repeated for maximum of 15 units per quarter. May be repeated for credit with same instructor. P/N or letter grading.

140. Chaucer: Canterbury Tales. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, and 10C. Study of literatures of Atlantic to examine cultural and historical significance for making of English culture, encompassing hagiography, vision, conversion, history, allegory, romance, saints’ lives, and travel literature. Texts and topics include Beowulf, Vikings, poems on women, Bede, and King Alfred. P/N or letter grading.

141. Introduction to Old English Language and Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. 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/N or letter grading.

142. Later Medieval Literature: Research Component. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Reading and historical explication of major writers of later medieval Britain (e.g., Gawain-poet, Langland, Gower, Gower/Mergentempe, Malory, magic and morality plays, prose, and lyrics). P/N or letter grading.

143. Drama to 1576. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, and 10C. Study of drama to 1576, with emphasis on complex ways in which letters of North America, Central America, South America, and Caribbean. May be repeated for credit with topic or instructor change. P/N or letter grading.

144. Medieval Romance and Literatures of Court. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Investigation of medieval court culture, exploring concepts of nobility, governance, love, loyalty, and power in range of genres: romance, courtly epic, lyric, de- bate, and satire. Texts may include Beowulf, Lais of Marie de France, Sir Gawain and Green Knight, Pearl, and Malory’s Morte Arthure. May be repeated for credit with topic or instructor change. P/N or letter grading.

145. Medieval Literatures of Devotion and Dissent. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, and 10C. Exploration of devotional genres and their complex re- lationships with traditions of dissent in medieval En- glish culture, encompassing hagiography, vision, con- version, history, allegory, romance, saints’ lives, and travel literature. Texts and topics include Beowulf, Vikings, poems on women, Bede, and King Alfred. P/N or letter grading.
plays, Wakefield cycle, Showings of Julian of Norwich, and Boiardo and Margaret 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. Exploration of medieval story cycles and story collections as narrative forms. Medieval story cycles engage in complex literary conversations across medieval cultures, periods, genres, and languages, while story collections often stage art of storytelling within narrative frame to invite self-consciousness about powers of literary production. May include tales such as texts gathered as Matter of Britain, Matter of Rome, or Matter of France; also Mabogini, manuscript collections such as Auchinleck manuscript or Exeter book, framed narratives such as Decameron, Canterbury Tales, One Thousand and One Nights, and Gower’s Confessio Amantis, or collections of exempla, legends, and dicta. 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. Investigation of medieval history writing as literary tradition. Medieval histories survive in every language of medieval Britain, including Latin, Old English, Welsh, Irish, Anglo-Norman French, and Middle English. Multilingual ubiquity of history writing points to histories of history-writing—histories always shaped by political, cultural, linguistic, and textual pressures of present tense. Texts may include histories, chronicles, material records, and historiographically encoded texts. May be repeated for credit with topic or instructor change. P/NP or letter grading.

148. Cultures of Middle Ages. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Interdisciplinary survey of particular medieval societies, with special emphasis on complex interactions between different ethnic and cultural traditions of medieval world. Examination of processes of intercultural encounter and transmission: classical or patrician traditions into medieval culture, crusade, travel literature, and literature of contact zones, including interactions between Celtic, Anglo, and Norman societies, and debates between Pagans, Jews, Christians, and Muslims. May be repeated for credit with topic or instructor change. P/NP or letter grading.

149. Medievalisms. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Interdisciplinary survey of particular medieval societies, with special emphasis on complex interactions between different ethnic and cultural traditions of medieval world. Examination of processes of intercultural encounter and transmission: classical or patrician traditions into medieval culture, crusade, travel literature, and literature of contact zones, including interactions between Celtic, Anglo, and Norman societies, and debates between Pagans, Jews, Christians, and Muslims. 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. Intensive study of selected poems and representative comedies, histories, and tragedies through Hamlet. P/NP or letter grading.

150B. Shakespeare: Later Plays. (5) 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.

150C. Topics in Shakespeare. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Introduction to or advancement of study of known works 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. (5) 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. (5) 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. History of Renaissance Early Modern Texts and Performances. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Topics may include professional and amateur performance of court, cities, churches, and countryside of varied sorts of texts—masques, religious drama, secular drama, charivari—alongside examination of texts, performers, and performance spaces from 1509 to 1642. May be repeated for credit with topic or instructor change. P/NP or letter grading.

154. Renaissance Worlds. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of various topics such as gender, sexuality, race, and ethnicity as they are understood in period from 1500 to 1700. May be repeated for credit with topic or instructor change. P/NP or letter grading.

155. Renaissance Subjects. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Literary representations of personal and public issues in early modern period—issues such as personal voice, relations of privacy/community, bodies/souls, selves/others, as impacted by quotients such as gender, sexuality, race, and ethnicity as they are understood 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. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of writings by Blake, Wolstonecraft, W. 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.

157. Translation and Innovation in English Renaissance and Early Modern Period. (5) 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 novel, Renaissance humanism, literature of love, monsters and marvels, representing nature, Ovidian transformations. May be repeated for credit with topic or instructor change. P/NP or letter grading.

158. Translation and Innovation in English Renaissance and Early Modern Period. (5) 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 novel, Renaissance humanism, literature of love, monsters and marvels, representing nature, Ovidian transformations. May be repeated for credit with topic or instructor change. P/NP or letter grading.

159. Topics in Literature, circa 1500 to 1700. (5) 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 novel, Renaissance humanism, literature of love, monsters and marvels, representing nature, Ovidian transformations. May be repeated for credit with topic or instructor change. P/NP or letter grading.

160A. Literature of Restoration and Earlier 18th Century. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works as literary documents and as products of Restoration and earlier 18th-century thought. P/NP or letter grading.

160B. Literature of Later 18th Century. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works as literary documents and as products of later 18th-century thought. P/NP or letter grading.

161A. Poetry in English to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Consideration of poetry across genres and throughout period. Topics may include rise of satire, verse forms including Pindaric ode, mock-epic, and verse-epistle, questions of literary imitation and originality, poetry’s relationship to empire, and gendering of authorship. May be repeated for credit with topic or instructor change. P/NP or letter grading.

161B. Drama in English to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Survey of drama in English until 1850. May be repeated for credit with topic or instructor change. P/NP or letter grading.

161C. Novel in English to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of novels from Henry VIII’s break with Rome to execution of Charles I or one specific topic such as varieties of martyrdom, art of confession, or conversion narratives. May be repeated for credit with topic or instructor change. P/NP or letter grading.


162B. Later Romantic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of writings by Byron, Keats, Percy Shelly, and Mary Shelley, with collateral readings from such authors as Hazlitt, Hunt, Landor, Clare, Moore, Peacock, Landon, Aikin, Hemans, and Prince. P/NP or letter grading.

163A. Romanticism and Revolution. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works of English literature that situate them in revolutionary context of development of deeper understanding of nature of Romanticism itself. Readings from works of Blake, Wordsworth, Coleridge, Southey, Austen, Byron, Keats, Wolstonecraft, and others. May not be repeated for credit. P/NP or letter grading.

163B. Transatlantic Romanticism. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Transatlantic Romanticines have been central in generating new conceptual frameworks for the complex issues related to interconnectedness of Atlantic rim cultures. With focus on ways in which cultures, ideologies, and political identities are reworked and reinscribed through transatlantic movement and cultural artifacts, expansion of notions of Romanticism to include transatlantic perspectives that understand early 19th-century Romantic literature as transatlantic phenomenon. May not be repeated for credit. P/NP or letter grading.

163C. Jane Austen and Her Peers. (5) 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 Rights of Woman, Gothic novel, and Maria Edgeworth’s Belinda. P/NP or letter grading.
164A. Earlier 19th-Century Poetry. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Developments in English poetic genres from time of Napoleon 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.

164B. 19th-Century Critical Prose. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of tradi-
tions in critical thought from 1800 to 1900 in relation to development of critical literary criticism, social, and political thought, and political writing. P/NP or letter grading.

164C. 19th-Century Novel. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of development of novel from 1800 to 1900, with focus on evolution of genre in relation to cultural, social, and political contexts in which readings were composed, circulated, and received. May be repeated for credit with topic or instructor change. P/NP or letter grading.

165A. Imperial Culture, 1700 to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of 19th-century literature as global phenomenon. Ways imaginative works engaged with 19th-century global formations, that may include structures and discourses of empire, international law, communication and transport systems, political boundaries and state sovereignty, slavery and anti-slavery, economic development, and exploration; religious communities, military engagements, and/or cultural conflicts. May not be repeated for credit. P/NP or letter grading.

165B. Gender, Sexuality, and Body, 1700 to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of relationship between culture and imperialism in 18th and 19th century. Consideration of relationship between literature and extra-literary texts and shifting patterns and paradigms of imperial rule, as metropolitan and peripheral spaces were transformed beyond recognition. Complete examination of imperialism and its relations to other literatures in English. P/NP or letter grading.

166. American Literature, 1776 to 1832. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A and 10B, or 11 and 87. Historical survey of American literatures from Revolution through early republic, with emphasis on genres that express distinctive colonial sensibilities, and reception of significant national literature and attention to American ethnic, gender, and postcolonial perspectives. P/NP or letter grading.

166C. American Literature, 1832 to 1865. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A and 10B, or 11 and 87. Historical survey of American literatures from Jacksonian era to end of Civil War, including emergent traditions of American realism, augmented and challenged by genres of popular protest urging application of democratic ideals to questions of race, gender, and social equality. P/NP or letter grading.

167A. American Poetry to 1900. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A and 10B, or 11 and 87. Study of American poetry from Puritan period through end of 19th century. P/NP or letter grading.

167B. American Fiction to 1900. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A and 10B, or 11 and 87. Study of American fiction (both novels and short stories) from its beginning to end of 19th century. P/NP or letter grading.

168. Major American Writers. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A and 10B, or 11 and 87. Broad survey of representative American writers across several centuries, designed to give concise account of broad narratives of American literary development, from origins through 19th century. Includes many works that have traditionally been identified as American classics and asks both what makes American literature distinctive and what its relations are to other literatures in English. P/NP or letter grading.

169. Topics in Literature, circa 1700 to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A and 10B, or 11 and 87. Examination of literatures from or about this time period. 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.

169B. Topics in Literature, circa 1700 to 1850: Research Component. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of question in literature of period known for its invention of sex/gender system. Topics may include representations of gender and sexuality across period, gender and authorship, and literature of embodiment. May be repeated for credit with topic or instructor change. P/NP or letter grading.

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 writers such as Howells, James, Twain, Norris, Dickin-
son, Crane, Chesnutt, Gilman, and others working in modes of realist and naturalist novel, regional and ver-
nacular 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, and 10C. Developments in English poetic genres in relation to significant movements such as aestheticism, decadence, femi-
nism, 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. Study of drama in English, with its principal continental influences, since World War II. P/NP or letter grading.

172A. Drama, 1850 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C. Study of American fiction from turn of century to present. May be repeated for credit with topic or instructor change. 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 drama in English, with its principal continental influences, since World War II. 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). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American poetry from end of World War II to present. 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 from after World War II. 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 in genre and/or historical period may 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 perspec-
tive. Historic breadth in study of American literature while posing such critical theoretical issues as emer-

434 / English
gence of U.S., Empire or relationship between North America and global south, including Africa, Latin America, and Caribbean. 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 relationships to other disciplines, including art, architecture, film, history, music, politics, and various social issues. 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 literatures from or about this time period. 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.

179. Topics in Literature. (5) Lecture, four hours; discussion; one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. 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 literary and cultural research, including archival, literary critical, and theoretical to equip students with skills working with primary sources, secondary criticism, and online databases. Specific literatures vary with instructors. 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, 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, 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.

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. Literature of different periods, 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 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.

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. 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.

183B. Topics in 18th-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 19th-Century American Literature. (5) Seminar, three or four hours. 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.

184. Capstone Seminar: 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.

185B. Professional Writing Capstone. (4) Same as English Composition M185B, Seminar, four hours. Limited to junior/senior Professional Writing minors. Topical course on strategies useful in written and multimodal genres. Intended to provide students with opportunity for serious engagement with writing project in minor specialization under close faculty supervision and in constructive writing group. Reading, discussion, oral presentations, rhetorical analysis, and development of professional portfolio. Students develop their capstone projects, including identity statements, genres, expectations, and rhetorical choices. 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 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 188SA. 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.

188SH. Individual Studies for USIE Facilitators. (3) Tutorial, 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.

189H. Honors Research Colloquia in English. (1) Seminar, one hour. Enforced corequisite: course 198A or 198B. Designed to bring together students under- taking supervised research for departmental honors or finer honing of scholarly skills under faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

190H. Honors Research Colloquia in English. (1) Seminar, one hour. Enforced corequisite: course 198A or 198B. Designed to bring together students under- taking supervised research for departmental honors or finer honing of scholarly skills under faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

M191A. Topics in African American Literature. (5) Same as African American Studies M179A, Seminar, three or four hours. Enforced requisite: 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, 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. (5) Same as Chicana/o and Central American Studies M179B, Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in Chicana/Chicana and/or Latina/Latina literature. Topics include Chicana/o and Latina/o literature; Chicana/chicana; Chicana/o, Chicana, Chicana/o literature, Chicana/o, Chicana/o literature; Chicana/o literature. 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 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 subcultures within Asian American community; 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, Queer 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.
Graduate Courses

200. Graduate Proseminar. (4) Seminar, three hours. Introduction to profession of literary studies. Covers wide array of topics including state of discipline; scholarly organizations and conference presentations; critical and methodological approaches to literary studies; writing and publishing for scholarly and general audiences; building curriculum vitae and résumé; 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 aesthetics 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 explain elements of 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.

205A. Study of Oral Tradition: History and Methods. (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 traditions of vernacular literatures, European romantic (re)discovery of oral tradition, 20th-century heuristic models of oral composition, and modern-day electronic media and popular genres, such as joking and rapping. S/U or letter grading.

205C. Studies in Oral Traditional Genres. (4) (Same as Scandinavian M273.) Seminar, three hours. Exploration in depth of literary and creative work presented through sponsored forums, speakers' series, and colloquia. May be repeated for credit. P/NP or letter grading.


211. Old English. (4) Lecture, four hours. Study of Old English texts. Emphasis on etymology and pronunciation to enable students to read literary heritage 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 211. Detailed study of linguistic aspects of Middle English and of representative examples of better prose and poetry. S/U or letter grading.

215. 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 script and 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 Latin, 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 perspectives and methodological approaches to greco-roman tradition.


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 in 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. Contemporary British Literature. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.


255. Topics in Novel. (4) Seminar, three hours. Theoretical and methodological approaches to study of the novel. May be repeated for credit. S/U or letter grading.

256. Studies in Drama. (4) Lecture, three hours. Studies in drama as genre from its beginning to present; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.


258. Studies in Novel. (4) Seminar, three hours. Studies in evolution of genre from its beginning to present; limits of investigation set by individual instructor. 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 M260B.) Seminar, three hours. Graduate seminar that examines and critically evaluates writings of Asian Americans. May be repeated for credit. S/U or letter grading.

M261. Studies in Chicana/Chicana Literature. (4) (Same as Chicana/Chicana and Central American Studies M289.) Seminar, three hours. Intensive research and study of major themes, authors, and issues in Chicana/Chicana literature and culture. Examination of political, aesthetic, economic, and cultural context that emerges in Chicana/Chicana 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 ways 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 medicinal ritual—in 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 methodological approaches taken from literary analysis, structural anthropology, folklore, linguistics, and ethno-musicology. May be repeated for credit with instructor and/or topic change. Letter grading.

270. Issues and Developments in Critical Theory. (4) (Formerly numbered M270.) Seminar, three hours. Investigation of selected trends in critical theory. Topics may include continental philosophy, memory studies, feminist and queer studies, urban studies, environmental humanities, critical race studies, and postcolonialism. 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 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 public engagement. This may be repeated for credit with instructor. 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 deployment 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 not be substituted for any departmental enrollment requirements. May be repeated for credit. S/U grading.


495A. Supervised Teaching Preparation. (4) Seminar, three hours. Required of all applicants for teaching assistantships in English. Introduction to teaching of literature intended to prepare teaching assistants for their first assignments in leading discussion sections. Practical concerns of creating assignments, grading papers, and holding conferences. S/U grading.

495B. Supervised Teaching Preparation. (3) Seminar, two hours. Required of all teaching assistants in their initial quarter of teaching. Mentoring and group teaching of selected first-time instructors. 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. S/U grading.

596. Directed Individual Study. (2 to 4) Tutorial, to be arranged. Limited to students preparing for first qualifying examination or engaging in intensive directed research project. May not be applied toward any course requirement for degree. Consult graduate counselor to enroll or obtain information. S/U or letter grading.

597. Preparation for PhD Examinations. (4 to 12) Tutorial, to be arranged. Limited to second-stage PhD students preparing for second qualifying examination. S/U grading.

598. MA Research and Thesis Preparation. (4 or 8) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any course requirement for degree. S/U grading.

599. PhD Dissertation Research. (4 or 8) Tutorial, to be arranged. Limited to PhD students unable to enroll in seminars in their fields or to students concurrently enrolled in such seminars. (Exception to this rule must be requested by petition.) S/U grading.

ENGLISH COMPOSITION
See Writing Programs

ENTREPRENEURSHIP
Interdisciplinary Minor
John E. Anderson Graduate School of Management
149 Kaplan Hall
Box 951530
Los Angeles, CA 90095-1530
Entrepreneurship
310-825-1389
E-mail contact
Alfred E. Osborne, Jr., PhD, Chair

Faculty Committee
Alfred E. Osborne, Jr., PhD (Management)
Nathan M. Wilson, PhD (Management)
Shi Zhang, PhD (Management)

Overview
The Entrepreneurship minor introduces undergraduate students to the field of entrepreneurship. A key element of entrepreneurship is the concept of opportunity recognition where individuals or teams pursue business concepts without regard to immediate access to resources utilizing lean start-up principles. Faculty members from applied fields in the professional schools and industry collaborate with faculty from academic disciplines across the campus to provide a critical framework for questioning and connecting topics related to entrepreneurship.

Through a carefully developed core curriculum and an integrative capstone experience, students in the minor obtain both breadth and depth in their understanding of the concepts, frameworks, and practical implications of entrepreneurship.

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 supporting their interest in pursuing the minor. Applications are accepted in fall, winter, and spring quarters. To help plan the course schedule 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 (24 or 25 units): Management 160, 161, 199 (4 units minimum), and three elective courses selected from Ancient Near East M105, Communication 109, M117, 133, 156, Dance C184, Digital Humanities 101, 150, Economics 106E, 173AX, 173BX, Environment 163, Ethnomusicology 105, Management 162, 163, 164, 167, 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 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 3.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
ENVIRONMENT AND SUSTAINABILITY, INSTITUTE OF THE
Center for Interdisciplinary Instruction
College of Letters and Science
300 La Kretz Hall
Box 951496
Los Angeles, CA 90095-1496

Environment and Sustainability
310-825-5008

Marilyn N. Raphael, PhD, Interim Director

Faculty Roster

Professors
Paul H. Barber, PhD
Daniel T. Blumstein, PhD
William C. Boyd, MA, JD, PhD (Michael J. Klein Professor of Law)
Ann E. Carlson, JD (Shirley Shapiro Professor of Environmental Law)
Judith A. Carney, PhD
Yoram Cohen, PhD
Charles J. Corbett, PhD
Magali A. Delmas, PhD
Elizabeth M. DeLoughrey, PhD
J.R. DeShazo, MSc, PhD
Rajit Gadh, PhD
Thomas W. Gillespie, PhD
Alexander D. Hall, PhD
Susanna B. Hecht, PhD
Uršula K. Heise, PhD (Marcia H. Howard Term Professor of Literary Studies)
David K. Jacobs, PhD
Jennifer A. Jay, PhD
Dennis P. Lettenmaier, PhD
Glen M. MacDonald, PhD (John Muir Memorial Endowed Professor of Geography)
Shally Mahendra, PhD
Timothy Malloy, JD (Frank G. Wells Endowed Professor of Environmental Law)
James C. McWilliams, PhD (Louis B. Stichter Professor of Geophysics and Planetary Physics)
Mary D. Nichols, JD, in Residence
Gregory S. Okin, PhD
Edward A. Parson, MSc, PhD (Dan and Rae Emmett Endowed Professor of Environmental Law)
Suzanne E. Paulson, PhD
Laurent G. Pilon, PhD
Stephanie S. Pincett, PhD
Michael L. Ross, PhD
Lawren Sack, PhD
H. Bradley Shaffer, PhD
Monica L. Smith, PhD (Navin and Pratima Doshi Professor of Indian Studies)
Thomas B. Smith, PhD
Victoria L. Sork, PhD
Michael K. Stenstrom, PhD
Irwin H. Suffet, PhD
Blaire Van Valkenburgh, PhD
Alex Wang, JD
Robert K. Wayne, PhD
Yifang Zhu, PhD

Professors Emeriti
Richard F. Ambrose, PhD
Randall D. Crane, PhD
J. Nicholas Entrikin, PhD
John R. Froines, PhD
Malcolm S. Gordon, PhD
Patricia A. Gowaty, PhD
William M. Hamner, PhD
Stephen P. Hubbell, PhD
David D. Jackson, PhD
Richard J. Jackson, MD, MPH
Paul M. Ong, PhD
Antony R. Orme, PhD
Philip W. Rundel, PhD
Keith D. Stolzenbach, PhD
Richard P. Turco, PhD
Richard R. Vance, PhD
Arthur M. Winer, PhD

Associate Professors
Alan I. Barreca, PhD
Deepak Rajagopal, PhD
Aradhna K. Tripati, PhD

Assistant Professors
Liz Koslov, PhD
Karen A. McKinnon, PhD
Pablo E. Saide, PhD
Robert Eagle Tripati, PhD

Adjunct Professors
Mark A. Gold, D.Env
Peter M. Kareiva, PhD
Sasan S. Saatchi, PhD

Adjunct Associate Professors
Travis R. Longcore, PhD
Rebecca F. Shipe, PhD

Adjunct Assistant Professors
Jon A. Christensen, PhD
Trevon L. Fuller, PhD
Ryan J. Harrigan, PhD
Emily L. Lindsey, PhD
Kevin Y. Njabo, PhD
Kristen C. Ruegg, PhD
Virginia M. Zaunbrecher, JD

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-

Mission

The mission of the UCLA Institute of the Environment and Sustainability 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 invigoring 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 environmental 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.
Undergraduate Science Major

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 courses, 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 particular 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

Preparation for the Major

Required: Chemistry 1A4, 1A4B, and 1A4BL (or 20A, 20B, and 20L), Environment 10, Geography 7, Life Sciences 7A, 7B, Mathematics 3A and 3B (or 31A 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.

Policies

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.

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, and 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.

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 sciences areas. No more than two courses may be from any one department. Atmospheric and Oceanic Sciences 101, 102, 103, 104, M105, M111, M112, 130, 141, Chemical Engineering C118, Civil Engineering 153, 154, M166, Earth, Planetary, and Space Sciences 101, C113, 119, 139, 150, 153, Ecology and Evolutionary Biology 100, 109, 116, 151A, 154, Environment 121, 157, Environmental Health Sciences 100, C125, C152D, C164, Geography 101, M102, M103, 107, 116, 117, M118, 120, M126, 133.

Social Sciences and Humanities Requirements


Practicum/Sustainability Talks Requirements

Required: Environment 180A, 180B, 180C, and two terms of 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, C115, M120, 130, 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 and Biochemistry 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, 133, 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 (or Environment 121), and four to six courses from 100L, 101, 103, 105, 109, 109L, 111, 112, 114A, 114B, C119A, C119B, 122, M127, 129, M131, 142, 151A, 152, 153, 154, 155, 162, 162L, C174, 176, 180A, 180B, any courses associated with the Field Biology Quarter or the Marine Biology Quarter or approved equivalent, Geography M103, 116, 117, M125, M126, 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 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, 121, M125, M126, M131, M133, 134, 150, M153, 157, C159, 160, M161, 162, 163, M164, 166, 167, 186 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.

Policies
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.

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.

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 standing (2.0 grade-point average) and file a petition at the Institute of the Environment and Sustainability, 300 La Kretz Hall, 310-206-9193.

The Minor
Required Lower-Division Courses (8 units): At least two courses from Astronomy 3, Atmospheric and Oceanic Sciences 1, 2, 3, Earth, Planetary, and Space Sciences 1, 15, 16, 20, Ecology and Evolutionary Biology 10, 13, 25, Environment M1A, M1B, 10, 12, 25, M30, M30SL, Geography 1, 2, 5.

Required Upper-Division Courses (20 units): At least five courses from Environment M111, 121, M125, M126, M131, M133, 134, 150, M153, 157, C159, 160, M161, 162, 163, M164, 166, M167, 186.

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 advisor 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 perceived 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.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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. To promote interdisciplinary as the core of the program’s identity, each student’s program of study and dissertation research are guided by two advisors from distinct areas of research and scholarship.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Environment

Lower-Division Courses

M1A-M1B-M1CW. Food: Lens for Environment and Sustainability, Institute of the Environment and Sustainability. (Formerly M125L-M126L-M127L) Course M1A is enforced requisite to M1B, which is enforced requisite to M1CW. Limited to first-year freshmen. Letter grading. M1A-M1B. Lecture, three hours; discussion, one hour; fieldwork, two hours. Enforced requisite for lower-division courses in local and global environmental and sustainability issues. Integration of environmental, social, economic, and technological solutions for fair, sustainable, and healthy food security, access, and accountability. 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 overpopulation. Laboratory exercises included in discussions. M1CW. Special Topics, Seminar, three hours. Enforced requisite: course M1B. 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.

10. Introduction to Environmental Science, (4) (Formerly numbered M121.) 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, regional, and global scales. Fundamental principles of physical, chemical, and biological processes important to environmental science. Laboratory exercises help to achieve letter grading.

12. Sustainability and Environment, (4) Lecture, three hours; discussion, one hour. Introduction to sustainability with emphasis on environmental components, 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 expertise and illuminating many paths of discovery at UCB. P/NP grading.

25. Good Food for Everyone: Health, Sustainability, and Culture. (5) Lecture, three hours; discussion, one hour. Concepts of healthy, sustainable, 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 law, food distribution and access, cultural identity and artistic engagements with food. P/NP or letter grading.

M30. Environmental Literature and Culture. (5) (Same as English M30.) 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 include: environmental justice, wilderness, indigenous ecologies, postcolonial ecologies, environmental justice, and climate change. P/NP or letter grading.

M30SL. Environmental Literature and Culture (Service Learning). (5) (Same as English M30SL) 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 include: environmental justice, wilderness, indigenous ecologies, postcolonial ecologies, environmental justice, and climate change. P/NP or letter grading.

M102. Soils and Environment. (4) (Formerly numbered M127.) (Same as Ecology and Evolutionary Biology M127 and Geography M120) Lecture, three hours; laboratory, one hour; field excursions. Corequisite: course M1O2. Investigation of soils and environmental implications: soil development, morphology, and worldwide distribution of soil orders; physical, chemical, hydrologic, and biological properties; water, air, erosion, and pollution; management of soils as related to plant growth and distribution. P/NP or letter grading.

M102L. Soils and Environment: Field. (1) (Formerly numbered M127LL) (Same as Ecology and Evolutionary Biology M127L and Geography M120LL) Laboratory, one hour; field excursions. Corequisite: course M1O2L. Investigations and demonstrations supporting material in core course, including sampling, describing, and naming soils in field, soil forming processes, geomorphology, and soils. P/NP or letter grading.

M103. Soil and Water Conservation. (4) (Formerly numbered M114.) (Same as Geography M130.) Lecture, three hours; discussion, one hour. Enforced requisite: one course from course 10, Geography 1, 2, 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.

M111. Earth and Its Environment, (4) (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 life on Earth. Consideration of possibility of technological solutions to global environmental problems using knowledge gained during course. Letter grading.

M121. Conservation of Biodiversity. (4) Lecture, three hours; discussion, two hours. Not open for credit to students with credit for Ecology and Evolutionary Biology 116. Examination of interrelatedness of natural biotic and human systems. Description of distribution of biodiversity and natural processes that maintain it. Critical analysis of various levels of threats and multidimensional challenges required for mitigating threats. Letter grading.

M125. Environmentalism: Past, Present, and Future. (4) (Formerly numbered M132.) (Same as Geography M125 and Urban Planning M165.) Lecture, three hours; discussion, one hour. Early ideas on rise of modern environmentalism. Introduction to early ideas and rise of modern sciences reshaped environmental thought, and how this was later transformed by 19th-century ideas and cause of American conservation movements. Review of politics 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.

M125B. Environmental Change. (4) (Formerly numbered M130B.) (Same as Geography M126B.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of natural forces producing environmental changes over past 2 million years. How present landscape reflects past conditions. Effects of environmental change on people. Increasing importance of human activity in environmental modification. Focus on impact on current and anthropogenic changes on forests. P/NP or letter grading.

M131. Human Impact on Biophysical Environment. (4) (Formerly numbered M109.) (Same as Geography M131.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of distribution of biodiversity and human systems. Description of distribution of biophysical environment. Study of the interrelationships 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/NP or letter grading.

M133. Environmental Sociology. (4) (Same as Sociology and Environmental Studies M133 and Sociology M115.) Lecture, three hours; discussion, one hour. Relationship between society and environment. Analysis in detail of interrelationships between social factors (such as class, race, gender, and religion) and environmental factors (such as pollution, water, air, and biodiversity, and global warming). P/NP or letter grading.

134. Environmental Economics with Data Analysis. (4) (Formerly numbered M134.) Lecture, three hours. Relationship of one course each from Economics, Life Sciences 40, Political Science 6, Statistics 10, 12, 13, or other statistical analysis 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. How to quantify cause-and-effect relationships, for example, between pollution and infant mortality, using non-experimental data. P/NP or letter grading.

140. Foundations of Environmental Policy and Regulation. (4) Lecture, three hours. Introduction to environmental policy and regulation in U.S. Provides basic knowledge and skills needed to work as professional environmental problem solver. Exploration of environmental harms that are subject to regulation, role of science in informing policy and regulation, evolution of environmental regulation, different types of regulatory instruments, regulatory process, and alternative approaches to environmental decision making. Includes California Environmental Quality Act (CEQA); Proposition 65; Formosa’s Law; role of air pollution control, and state’s pioneering efforts in regulating greenhouse gas emissions. P/NP or letter grading.

150. Environmental Journalism, Science Communication, and New Media. (4) Lecture, three hours. Introduction to environmental journalism, science communications, and new media, including weekly guest lectures by prominent successful practitioners in wide variety of media. Focus on technologies, methods, genres, and theories of communicating environmental challenges, exploring solutions, and envi-
gaging public in newspapers, television, radio, movies, online, on mobile devices, and through social media. Discussion of possibilities and limitations of different media and importance of communications for environmental science, policy, public understanding, and individual decision making. Production by students of environmental communications in variety of media. P/NP or letter grading.

M153. Introduction to Sustainable Architecture and Community Planning. (4) Same as Architecture and Urban Design M153. Lecture, three hours; field trip, three hours. Relationship of built environment to natural environment through whole systems approach, with focus on sustainable design of buildings and planning of communities. Emphasis on technical and environmental aspects of energy and resource conservation, and appropriate use of resources, including materials, water, and land. Letter grading.

157. Energy, Environment, and Development. (4) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Examination of water quality and water supply issues, including interactions between scientific, technological, and policy issues. Invited experts, scholars, and practitioners discuss relevant issues such as pollution, climate change, and water infrastructure. Emphasis on solutions involving integrated water supply and wastewater systems. Leadership development through writing instruction and mediation training. P/NP or 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 interactions between scientific, technological, and policy issues. Invited experts, scholars, and practitioners discuss relevant issues such as pollution, climate change, and water infrastructure. Emphasis on solutions involving integrated water supply and wastewater systems. Leadership development through writing instruction and mediation training. 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 environmental justice and environmental and social justice. That is highly complex phenomenon, multidisciplinary and multi-population approach taken, by using alternative ways of understanding, including, and action taking. P/NP or letter grading.

170. Environmental Science Colloquium. (1) Seminar; 90 minutes; one field trip. Limited to undergraduates. Study of current topics in environmental science, including participation in weekly colloquium series and field trips. May be repeated for credit. P/NP grading.

175. Programming with Big Environmental Data Sets. (4) Lecture, three hours. Requisite: Life Sciences 40 or Statistics 12 or 13. Students gain practical experience conducting empirical research by learning how to program in R. This programming language shares many similarities with other statistical programs, providing students with valuable lab experience. Letter grading.

180A. Practicum in Environmental Science. (4) Lecture, three hours; discussion, two hours. Enrolled at various places of study, including institutions, city and regional settings. Emphasis on communication skills. May be repeated for credit. P/NP or letter grading.

180B. Practicum in Environmental Science. (5) Lecture, one hour; laboratory, five hours. Requisite: course 180A. Course 180B is restricted to 180C. Limited to junior/senior Environmental Science majors who have completed 40 or more units of preparation for major courses, including statistics, and 12 or more units of upper-division courses 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. Requisite: course 180A. Course 180B is restricted to 180C. Limited to junior/senior Environmental Science majors who have completed 40 or more units of preparation for major courses, including statistics, and 12 or more units of upper-division courses 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.

188A-B. Special Courses in Environment. (4-2) 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 or in conjunction with other courses. May be repeated for credit. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enrolled at various places of study, including institutions, city and regional settings. Emphasis on communication skills. May be repeated for credit. P/NP or letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Limited to junior/senior USIE facilitators. Must have been exposed to in other courses. Letter grading.
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.

M192. Undergraduate Practicum in English: Journals. (2) (Same as English M192 and English Composition M192.) Seminar, two hours. Training and supervised practicum for undergraduate student editors of campus and faculty journals. May be repeated for credit. C159. S/U or 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 Health Sciences. (2–4) 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 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 supervisor required; consult undergraduate 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 completion of honors thesis or comprehensive research project under direct supervision of faculty member. Must be taken for at least two terms and for total of at least 8 units. Individual contract required. Letter grading.

199. Directed Research in Environment. (2 to 4) Tutorial, two hours. Preparation: submission of written proposal outlining study or research to be undertaken. Limited to graduate students. Supervised individual search or investigation under guidance of faculty mentor. Progress report must be submitted to faculty mentor at end of term. Culumnizing paper or project required. May be repeated for credit, but only 4 units may be taken each term. Individual contract required. P/NP or letter grading.

Graduate Courses

200A-200B. Issues and Methods in Environment and Sustainability. (4–4) Seminar, four hours. Course 200A: In an interdisciplinary setting, examination of interdisciplinary case studies that approach problems in environment and sustainability as issues with scientific, social, economic, political, philosophical, ethical, historical, 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. S/U or letter grading.

200A-200B. Issues and Methods in Environment and Sustainability. (4–4) Seminar, four hours. Course 200A: Examination of interdisciplinary case studies that approach problems in environment and sustainability as issues with scientific, social, economic, political, philosophical, ethical, historical, 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. S/U or letter grading.

M235. Modern Environmental Statistics. (4) (Same as Statistics M235.) Seminar, three hours. Limited to graduate students. Recommended prerequisite: calculus-based linear algebra. Focus on practical understanding and application of statistical tools for environmental datasets. Topics include brief overview of concepts in probability, distributions, hypothesis testing, developing and assessing regression models, multidimensional data exploration, time series analysis, and spatial modeling. Draws upon relevant examples in scientific literature. Performance of analyses of real-world datasets. Small groups complete and present project analyzing relevant dataset of choice. S/U or letter grading.

240. Food, Energy, and Water Systems Management Seminar. (1) Seminar, one hour. Designed for students in science, technology, engineering, and mathematics (STEM) field 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 methods (e.g., surveys, experiments, using available data), ethical issues, 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 various 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-297B. Advanced Topics in Environment and Sustainability. (2–4) 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.


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. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to students who have advanced standing. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

ENVIRONMENTAL HEALTH SCIENCES

Environmental Health Sciences / 443

Jonathan and Karin Fielding School of Public Health

56-070 Center for Health Sciences
Box 951772
Los Angeles, CA 90095-1772

Environmental Health Sciences
310-206-1619
Shane S. Que Hee, PhD, Interim Chair

Faculty Roster

Professors

Jesus A. Araujo, MD, PhD
Michael D. Collins, 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, environmental policy, 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/Urban Planning MURP) is also offered. The interdepartmental Molecular Toxicology program offers a PhD degree.

Graduate Major

Environmental Health Sciences MS, PhD

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

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 instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99HC. 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.

99HG. Honors Graduation, (1) Tutorial, three hours. Preparation: one course each in 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 C520D. P/NP or letter grading.

C525. Environmental Policy for Science and Engineering, (4) Lecture, four hours. Preparation: one year each of biology, one course each in physics, organic chemistry, and physical chemistry. Designed for science, engineering, 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 C225. P/NP or letter grading.

C135. Environmental Policy for Science and Engineering, (4) Lecture, four hours. Preparation: one year each of biology, one course each in physics, organic chemistry, and physical chemistry. Designed for science, engineering, 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 C225. P/NP or letter grading.

C140. Fundamentals of Toxicology, (4) Lecture, four hours. Preparation: one year each of 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 organ systems. 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 C520D. P/NP 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 C257. P/NP or letter grading.

C164. Fate and Transport of Organic Chemicals in Aquatic Environment, (4) Lecture, four hours. Preparation: one course each in 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 C264. P/NP or letter grading.

M166. Environmental Microbiology, (4) (Same as Civil Engineering M166.) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: Civil Engineering 153. Microbial cell
Graduate Courses

C200A. Foundations of Environmental Health Sciences. (6) Lecture, six hours. Preparation: one year of undergraduate biology and chemistry. Introduction to field of environmental health sciences designed for students pursuing MS degrees. Examination of series of topics relevant to science of environmental health (e.g., population, agriculture/food, microorganisms, energy, climate change, water, waste, air) by introducing scientific basis from ecological perspective and describing how topics relate to health on biochemical and molecular basis. Emphasis on critical skills needed 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 chemistry and biology. Future environmental health and public health leaders must 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 develop, implement, and leading of actions to address these problems. Supplements content presented in Public Health 200A and 200B and Environment 100. Concurrently scheduled with course C185B. Letter grading.

C200C. Foundations of Environmental Health Sciences. (6) Lecture, four hours; group project, two hours. Preparation: courses C200A or C200B. Multidisciplinary aspects of environmental health sciences in context of public health for environmental health majors. Concurrently scheduled with course C185C. Letter grading.

200D. 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 strategies, 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, toxicology, 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, microenvironments, types of monitoring (outdoor, indoor, personal, biomarkers), and climate change sources. 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.


207. Introduction to Geographic Information Systems. (4) Lecture, two hours; laboratory, two hours. Introduction to geographic information systems (GIS), including use of GIS software, mapping, 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 affairs graduate students. Interdisciplinary course on built environment 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 toxic complications, there is growing recognition of hazards presented by building and community design that fail to recognize human health. Land use and built environment decisions impact every aspect of social and environmental health. These 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 endpoints. S/U or letter grading.

209. Practical Applications in Environmental Health Sciences. (2) Lecture, two hours. Enforced requisites: courses C200A, C200B. Describes many leading environmental and occupational health problems that environmental health practitioners face today, conducted as series of lectures, assignments, hands-on field exercises, and group projects, to help students develop skills necessary to integrate concepts across disciplines in the field of environmental health. May satisfy some requirements needed to qualify for Registered Environmental Health Specialist (REHS) certification. S/U or letter grading.


213. Seminar: Practical Aspects of Biosafety and Biosecurity. (2) Seminar, discussion, two hours. Preparation: one year of introductory biology. Recommended requisite: Microbiology 101 or 102. Designed for environmental health sciences graduate students and students in UCLA Biosafety Training Program, to introduce basic principles in and practical aspects of biosafety, biosecurity, risk assessment, and risk management that are needed for individuals wishing to serve as interns in UCLA biosafety laboratories and become biosafety professionals. S/U or letter grading.

214. Children’s Environmental Health: Prenatal and Postnatal. (4) Lecture, four hours. Preparation: one year of chemistry and one year of biology. Examination of how environmental exposures to chemical, physical, and biological agents during period of maturation (from fertilization to adulthood) cause pathophysiological alterations in homeostasis at any stage during life. Letter grading.

215. Fundamentals of Health Impact Assessment. (4) Seminar, four hours. Provides students with sound understanding of health impact assessment (HIA) practice, its rationale, theoretical underpinnings, and opportunities to develop and apply HIA skills in work with public agencies and community-based organizations. Focus on problem solving around case-study HIA’s and student experience working on HIA-related projects. S/U or letter grading.
216. Planetary Health: Consequences of Environmental Change for Human Health. (4) Seminar, three hours. Planetary health is emerging interdisciplinary field that explores connections between environmental change and public health. Human-caused impacts on the environment have substantial effects on human health including changes in land use, food systems, biodiversity, air pollution, and water availability. Our ability to understand planetary health requires addressing issues from cross-disciplinary science to address complex human health issues. Students will learn about the effects of climate change on human health, the role of human activities in driving climate change, and the challenges and opportunities for addressing these issues. Preparation: under-graduate level statistics, basic under-graduate microeconomics. Introduction to applied scholarship in environmental economics and policy. Students will explore how to more proficiently consumers and producers of social statistics, basic undergraduate microeconomics. In communicating planetary health research through oral and written communication, students will develop their ability to communicate with diverse audiences through visual communication. Study of science of science communication and the importance of narrative storytelling to producing engaging science communication. Applying these skills to their own research topics and interests, students will develop a scholarly presentation. Letter grading.

217. Graduate Seminar in Environmental Economics. (4) (Same as Policy M217.) Seminar, four hours. Preparation: under-graduate level economics and microeconomics. Students will explore current and emerging topics in environmental economics and the role of economics in understanding and solving environmental problems. Topics will include 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 complex and diverse topics with diverse audiences through visual communication. Study of science of science communication and the importance of narrative storytelling to producing engaging science communication. Applying these skills to their own research topics and interests, students will develop a scholarly presentation. 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 the disproportionate health burden experienced by low income communities and communities of color in the U.S. due to environmental hazards. Study of social, economic, and community factors that create inequalities and differences in environmental pollution. Covers theoretical frameworks and analytic tools for understanding cumulative impacts of environmental and social inequalities on health. Case studies, research, and policy debates will be used to explore challenges and opportunities for addressing environmental racism and advancing environmental justice. S/U or letter grading.

220. Overview of Environmental Public Health Microbiology. (2) Lecture, two hours. Preparation: one course in biology. Introduction to environmental public health microbiology. Focus on human-disease causing microorganisms, viruses, fungi, protozoa or protozoans, and algae. Consideration of infectious diseases and of toxins produced by these microbes. Addresses how infectious agents interact with human biology to cause disease. 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. Students will make efforts to externalize and future global burden of disease due to climate change, as well as avoidable and attributable risk. Elaboration of public health implications, positive and negative, of efforts to mitigate 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 vulnerable people and groups. Students are responsible for leading class discussions and presenting poster on topic of interest related to climate change and health. S/U or letter grading.

222. 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, engineering, 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 formation, acid deposition, stratospheric ozone depletion, accumulation of greenhouse gases, and regional and global distribution of volatile toxic compounds. Concurrently scheduled with course C232.

230A-230B-230C. Interdisciplinary Occupational Health Practice. (2–2–2) Seminar, one hour; fieldwork, one hour. Multidisciplinary nature of occupational health practice and features 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 professionals encounter in various work environments. Lectures, seminars, field exercises, workshops, clinical case conferences, and group assignments combined to help students develop skills to integrate and communicate relevant approaches to occupational hazard detection and control, work-related injury and illness surveillance, and disease and disability prevention from diverse disciplines in the field of occupational health and safety. S/U grading.

235. 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.

225. Control of Airborne Contaminants in Industry. (4) Lecture, two hours; laboratory, two hours. Preparation: one year of physics. Requisites: course C252D. Principles and applications applied to industry and occupational environment. Includes general and local exhaust ventilation, air cleaning equipment, and respiratory protection. S/U or letter grading.

226. 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 exposures to organic and inorganic chemicals and physical factors. Letter grading.

227. Risk Assessment and Standard Setting. (4) Seminar, four hours. Requisites: course C240. 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 C157. S/U or letter grading.

228. Identification and Analysis of Hazardous Wastes. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: one year of chemistry. Identifies hazardous wastes, and waste management approaches, including low back pain, falls, machine exposures, upper extremity musculoskeletal disorders, fleet safety, and selected ergonomics topics. Letter grading.

229B. Workplace Safety. (2) Lecture, two hours. Introduction to broad range of topics in workplace safety. Introduction to laws and regulations covering hazardous wastes. Specific topics include traditional safety topics, such as fall hazards, machine safety, and fire hazards. Introduction to concepts of safety culture and organizational safety topics. Review and presentation of peer-reviewed articles on topics relevant to course material. Letter grading.

230. 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. 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. Designed for graduate students. Exploration of impact of work on physical and psychological health, both at work and in 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.

296A-296N. Research Topics in Environmental Health Sciences. (2 each) Seminar, two hours. Advanced study and analysis of current topics in environmental health sciences. Discussion of current research and literature. Preparation: 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 grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Preparation: obtaining 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. Field Studies in Environmental Health Sciences. (4) Fieldwork, to be arranged. Field observation and studies in selected community environmental health organizations. 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 62-unit minimum total required for MPH degree. Letter grading.

401. Environmental Measurements. (4) Lecture, two hours; laboratory, four hours. Preparation: courses C200A, C200B, Chemistry 20A, 20B, 30AL, 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. 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. Speakers who are leading thinkers at interface of health and environment address important subjects of environmental health. May be repeated for credit. S/U 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; field trips, four hours. Requisite: course 255. Industrial processes and operations and occupational health hazards that arise from them. Letter grading.

454. Health Hazards of Industrial Processes. (4) Lecture, two hours; field trips, four hours; requirements: course 255, industrial processes and operations and occupational health hazards that arise from them. Letter grading.

456. 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.

569. 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 total course requirement. May be repeated for credit. S/U grading.

579. 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.

598. Master’s Thesis Research. (2 to 10) Tutorial. Four hours. 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 10) Tutorial. Four hours. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.
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. Also of concern are the temporal and spatial 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 analysis, and statistical methods. Epidemiologic methods 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

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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. First Year 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.

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

100. Principles of Epidemiology, (4) Lecture, four hours; discussion, two hours. Preparation: one full biological sciences course. 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; critiquing epidemiologic studies; identifying and accessing key sources of data for epidemiologic assessment; using epidemiologic methods and calculating basic epidemiology measures for operational purposes; and communicating basic principles of epidemiology such as definitions of populations, sources of bias, causation for morbidity and mortality, risk and protective factors, and basics of study design. 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 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, or 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.

197. Individual Studies in Epidemiology, (2 to 4) Tutorial, and methods. 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.

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: courses 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, (2) (Formerly numbered 203.) (Same as Health Policy M201.) Lecture, two hours. Selected topics from current research areas in epidemiologic theory and quantitative methods. Topics selected from biologic models, epidemiologic models, problems in inference, model specification problems, design issues, analysis issues, and confounding. May be repeated for credit with consent of instructor. S/U grading.


205. Methods for Analyzing Non-Randomized and Quasi-Experimental Studies, (4) Lecture, three hours. Enforced 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, econometric analysis, and evaluation methods. Includes 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. Enforced 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 fields sometimes referred to as systems epidemiology or computational epidemiology. Multidisciplinary fields that use tools and techniques from computer sciences, econometrics, operations research, engineering, and biostatistics support better understanding of disease mechanisms or evaluate intervention effectiveness. S/U or letter grading.

M211. Statistical Methods for Epidemiology. (4) Lecture, four hours. Preparation: two terms of statistics (e.g., Biostatistics 100A, 100B). Requisites: courses 200B, 200C. Concepts and methods tailored for analysis of epidemiologic or clinical 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, smoothing and sensitivity analysis. S/U or 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 and practical understanding of systematic review methodology 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.

M216. 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 and estimation methods via laboratories and hands-on laboratory exercises. S/U or letter grading.

217. Social Networks and Public Health. (4) Lecture, four hours. Requisite: course 100 or 200A, or Public Health 200A and 200B. Principles of social network research, analysis, and social work intervention, especially in relation to public health and health behavior. Coding examples are provided in R (mainly R igraph and ggplot2 packages). Discussion of landmark social network papers relevant to public health. S/U or letter grading.

M218. Questionnaire Design and Administration. (4) (Same as Community Health Sciences M218.) Lecture, four hours. Requisites: courses 200B and 200C, or Consent of Instructor. Preparation: courses 211A and 211B. Discussion of designing, testing, field use, and administration of data collection instruments, with particular emphasis on questionnaires. 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 such as sample size, study design, and other epidemiologic methodologic articles authored by instructor; nature of articles themselves; subsequent studies that have used suggested approaches; and any modification of methods that are 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 200B and 200C. 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.

M226. Global Health Measures for Biological Emergencies. (4) (Same as Ecology and Evolutionary Biology M226.) Lecture, four hours. Requisite: course 220. Migration and terrorism 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 public health interventions. Letter grading.


230. Epidemiology of Sexually Transmitted Diseases. (4, 5) Lecture, four hours. Requisite: course 100 or 200A, or Public Health 200A and 200B. Sexually transmitted diseases (STD) aspects of 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. Introduction to range of different methodologies used to collect data and conduct analysis on reproductive epidemiology topics, including methods that produce quantitative data and methods that produce qualitative data, with emphasis on use of methods appropriate for challenging and sensitive research topics such as sexual behavior, abortion use, and sexual abuse. Letter grading.

240. Cardiovascular Epidemiology. (2) Lecture, two hours. Topics include definition, pathogenesis, descriptive epidemiology 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. Overview of 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 assessments, prevention and management, as well as methodologic issues related to study design and measures of conducting obesity and diabetes research in large populations. Encourages students’ creative thinking and improves their skills for scientific writing and oral presentation on individual and team assignments. S/U or letter grading.


244. Research Methods in Cancer Epidemiology. (2) Lecture, two hours. Requisites: course 100 or 200A, and Biostatistics 100A, or Public Health 200A and 200B. Biologic, quantitative, philosophical, and administrative considerations in epidemiologic cancer research. Critical thinking and application of design methods. Sources of bias and confounding. S/U or letter grading.

245. Lifestyle Intervention for Noncommunicable Chronic Diseases. (2) Lecture, two hours. Requisites: course 100, Public Health 200A, 200B. Designed to teach students how to apply medical and social 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: course 100 or 200A, and Biostatistics 100A, 100B, or equivalent, or consent of instructor. Introduction to concepts and methods for studying lifecourse 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 term of epidemiology, biostatistics, and genetics. Basic concepts in emerging field of genetic epidemiology, with principal focus on genetic and family studies that are being applied to genetic contributions to disease, identifying genes, and characterizing their main effects and interactions with environmental factors. S/U or letter grading.

M254. Nutritional Epidemiology I. (4) (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 nutritional sciences that may provide application of epidemiologic principles and methods, ranging from food-borne outbreak investigation to evidence-based regulatory assessment of health claims for foods. Experience in critical analysis and evaluation of nutrition and health claims for foods. S/U or letter grading.

M256. Occupational Epidemiology. (2 or 4) Lecture. Requisite: course 100 or 200A, or Public Health 200A and 200B. Comprehensive study of occupational exposures applied to evaluation of human health consequences of environmental hazards. Topics include air pollution, pesticides, drinking water contaminants, use of GIS. Preparation: at least one term of biostatistics and statistical 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 human health consequences 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. Topics include clusters,
meta-analysis, risk assessment, and policy development. Illustrated by case studies, focused on method- niques to critically evaluate and interpret current litera- ture. Letter grading.


267. Methodological Issues in Reproductive Epide- miology. (2) Seminar, two hours. General discussion of methodological issues important to epidemiological studies of reproductive health. Issues include small sample sizes, low birth weight, prematurity, birth defects, pregnancy loss, and perinatal mortality. Approaches to study de- sign and exposure assessment and identification of potential sources of bias illustrated through review of recent studies published in literature and with partic- ular focus on occupational and environmental expo- sures and birth cohorts. S/U or letter grading.

268. Introduction to Pharmacoepidemiology. (2) Lecture, two hours; discussion, one hour. Introduction to Pharmacoepidemiology is application of epidemiologic knowledge, reasoning, and methods to study of effects and uses of drugs. Survey of the role of analytical tools in pharmacepi- diology in drug development and public health, with his- torical background of its evolution and projections of future prospects. S/U or letter grading.

269. Substance Use Epidemiology on data. (4) Lecture, three hours. Requisite: course 200A, and Biostatis- tics 100A or 100B or equivalent. Introduction to epide- miology of substance use and substance use disor- ders 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 ex- amination of role of epidemiology in informing and evaluating policies and programs involving substance use disorders, including health services and pharmacologic and non-pharmacologic treatments. S/U or letter grading.

270. Behavioral Epidemiology. (4) Lecture, four hours. Requisite: course 100, or 200A, or Public Health 200A and 200B. Introduction to range of different methodol- ogies used to collect data and conduct analyses on behaviors, studies 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 ques- tionnaires, convenience samples, survey designs to collect data) and methods to collect and analyze qualitative data (e.g., ethnographic interviews, focus groups, systematic observations). Overview informa- tion on epidemiological factors affecting human health, including sexual risk behaviors, substance use, physical activity, and healthcare utili- zation. S/U or letter grading.


273. Responsible Conduct of Research in Global Health. (2) (Same as Public Health M273.) Lecture, two hours. Requisite: Community Health Sciences 200. Introduction to ethical principles of global 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 institutional review boards. S/U or letter grading.

275. Terrorism, Counterterrorism, and Weapons of Mass Destruction: Practical Approach. (5) Seminar, three hours. Terrorism, its origins, and ways of ad- dressing terrorism at local, national, and global levels. Guest speakers from variety of UCLA departments and from Los Angeles. Concurrently scheduled with course CM175, S/U or letter grading.


277. Psychiatric Epidemiology. (4) Lecture, two hours; discussion, one hour. Requisite: course 100 or 200A, or Public Health 200A and 200B. Conceptual understanding of analytic methods in epidemi- ology. Students develop basic proficiency in methods they will use for their own research. S/U or letter grading.

278. Epidemiology and Policy of Occupational and Environmental Health Issues. (2) Seminar, two hours. Requisite: courses 200A, 200B, and 501, or 200C or 100, and/or 260. Introduction to epidemiology. May be repeated for credit. S/U or letter grading.

279. Seminar: Special Topics in Epidemiology. (2) Seminar, two hours. Requisite: course 100 or 200A, or Public Health 200A and 200B. Review of current epi- demiologic research contained in recent medical liter-ature. May be repeated for credit. S/U or letter grading.

285. Advanced Seminar in Epidemiology. (2) Seminar, two hours. Requisite: courses 200A, 200B, 200C or 100, and Biostatistics 100A or 100B or 120A. Introduction to methods used in epidemiology. May be repeated for credit. S/U or letter grading.


294. Epidemiology and Policy of Occupational and Environmental Health Issues. (2) Seminar, two hours. Requisite: courses 200A, 200B, and 200C or 100, and/or 260. Introduction to demands that go beyond pure science, with focus on issues such as risk com- munication, potential influence (and ethics) of over- sight panels and external review groups on presenting results and conclusions, and interest of government agencies. S/U or letter grading.

295. Seminar: Demography—Cancer. (2) Seminar, two hours. Requisite: course 100 or 200A, or Public Health 200A and 200B. Understanding basic concepts of cancer epidemiology and review of current epidemiologi- cal research in cancer in recent medical and epidemiological literature. May be repeated for credit. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice person- nel 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. Field Studies in Epidemiology. (4) Fieldwork, to be arranged. Field 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, applied toward MS minimum course requirement; 4 units may be ap- plied toward 44-unit minimum total required for MPH degree. Letter grading.

401. Applied Epidemiologic Analysis. (4) Lecture, three hours. Requisite: course M403, Biostatistics 100B, Public Health 200A, 200B. Combines lectures, discussions, and laboratory assignments to offer con- ceptual understanding of analytic methods in epidemi- ology. Students develop basic proficiency in methods by conducting statistical analysis using epidemiologic data, with expectation that students pursue courses 200A and 200B in second year and develop expertise in methods they will use for their own research. S/U or letter grading.

4503. Computer Management and Analysis of Health Data Using SAS. (4) (Same as Biostatistics M403B.) Lecture, two hours; laboratory, two hours. In- troduction to practical issues in management and analysis of health data using SAS programming lan- guage. Use of cross-sectional and longitudinal-based data sets to be used throughout to illustrate principles of data management and analysis for ad- dressing biomedical and health-related hypotheses. Letter grading.


407A. Applied Epidemiologic Research Using R. (2) Lecture, two hours. Requisite: course 407A. De- signed to broadly offer R coding experience, with em- phasis on data management, data description using tables and figures, and data analysis. Introduction of various concepts with data to facility interactive learning each week through guided R programming tutorials. 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 introduc- tion, methods, and results, and submits a reproducible brief communication paper. S/U or letter grading.

410. Introduction to Python for Epidemiologists. (2) Lecture, two hours. Requisite: Biostatistics 100A, Public Health 200A. Introduction to Python pro- gramming language for epidemiologic analyses of big data. Topics covered include supervised and unsupervised learning methods, feature engineering, and model evaluation approaches using both quantitative and qualitative-based health data. S/U or letter grading.

512. Public Health Surveillance. (2) Lecture, two hours. Requisite: courses 100 or 200A, and Biostatistics 100A, or Public Health 200A and 200B. Overview of public health surveillance, including (1) principles of scientific writing and communication, (2) analysis and interpretation of surveillance data, and (3) application of surveillance tools to specific health-related outcomes. S/U or letter grading.

413. Methods of Scientific Communication. (2) Lecture, two hours. Requisite: course 100 or 200A. Principles of scientific writing and communication. Ap- proaches to developing effective written, oral, and vi- sual 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-Re- source Settings. (4) Lecture, four hours. Requisite: course 100 or 200A, or Public Health 200A and 200B. Introduction to field trials and studies in selected community organizations for health promotion of medical care. Students must file field placement and program training documentation on form available from Student Affairs Office, applied toward MS minimum course requirement; 4 units may be ap- plied toward 44-unit minimum total required for MPH degree. Letter grading.

450. 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 and is not a part of the cooperative program training documentation on form available from Student Affairs Office, applied toward MS minimum course requirement; 4 units may be ap- plied toward 44-unit minimum total required for MPH degree. Letter grading.

501. Cooperative Program. (2 to 8) Seminar, under 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, applied toward MS minimum course requirement; 4 units may be ap- plied toward 44-unit minimum total required for MPH degree. Letter grading.
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 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 total course requirement; may not be applied toward minimum graduate 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.

ETHNOMUSICOLOGY
Herb Alpert School of Music
2520 Schoenberg Music Building
Box 951657
Los Angeles, CA 90095-1657

Ethnomusicology
310-825-8381
Mark L. Kligman, PhD, Chair

Faculty Roster

Professors
Tara C. Browner, PhD
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)
A. J. Racy, PhD
Helen M. Rees, PhD
Roger W. H. Savage, DPhil
Timothy D. Taylor, PhD

Professors Emeriti
Jacqueline Cogdell DjeDje, PhD
Charlotte A. Heth, PhD
William R. Hutchinson, PhD
Daniel M. Neuman, PhD (Mohindar Brar Sambhi Endowed Professor Emeritus of Indian Music)
James W. Porter, MA
Timothy Rice, PhD
Hiromi Lorraine Sakata, PhD
Anthony Seeger, PhD

Associate Professors
Munir N. Beken, PhD
Katherine In-Young Lee, PhD

Lecturers
Mehrdad Arabifard
Francis P. Awe, MA
Teresia Awe, BA

David M. Bragger
Paul J. De Castro, DMA
Jéssus A. Guzmán
Rahul D. Neuman
Amir H. Pourjavady, PhD
Yuriko T. Shimoda, MA
Djoko Waliwo Wimboprasetyo
Diane L. White-Clayton, PhD

Adjunct Professors
Amy R. Catlin, PhD
Abhiman Kaushal
Chi Li, BA
Tzvetanka T. Varimezova, BA

Adjunct Associate Professors
Maureen A. Russell, MLS, MA, CPhil
Ivan Varimezov, BA
I Nyoman Wenten, PhD

Adjunct Assistant Professor
Supeena Insee Adler, PhD
Farzad Amoozegar, PhD

Visiting Assistant Professor
Pejman Hadadi

Ethnomusicology

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 philosophy 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.

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 the field

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.

Preparation for the Major
All entering first years are required to take the Music Theory Assessment Examination either during New Student Orientation 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
pursued, 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.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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. (5) 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 Music Analysis. (2–2–2) (Same as Music M6A-M6B-M6C and Musicology M6A-M6B-M6C.) Laboratory, four hours. Preparation: placement examination. Course M6A is enrolled for the first time; M6B, which is enrolled for subsequent terms. Course M6C requires students 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. Discussion of the relationship between musical genres and other arts (dance, theater, visual arts, and literature) and analysis of how these types of music have interacted with issues of race, class, gender, religion, ritual, politics, social movements, and cultural identity. Includes detailed introduction to musical terms and concepts throughout. Letter grading.

M12A-M12B. African American Ethnomusicology. (5–5) (Formerly numbered M110A.) (Same as African American Studies M12A-M12B and Global Jazz Studies M12A-M12B.) Lecture, four hours; discussion, one hour. P/NP or letter grading. M12A. Sociocultural history and survey of African American music covering Africa and its impact on America; music of 17th through 19th centuries; minstrelsy and its impact on representation of blacks in film, television, and theater; religious music, including hymns, spirituals, and gospel; black music of Caribbean and Central and South America; and music of black Los Angeles. M12B. Sociocultural history and survey of African American music covering blues, pre-1947 jazz styles, rhythm 'n' blues, soul, funk, disco, hip-hop, and symbiotic relationship between recording industry and effects of cultural politics on black popular music productions.

15. American Life in Music. (4) Lecture, three hours. Impact of ethnicity, race, gender, and other social processes on American music in late 20th century; uses of and creativity in music to respond to and shape contemporary social processes. P/NP or letter grading.

16. Fiat Lux Freshman Seminar. (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 only available at UCLA. P/NP grading.

20A-20B-20C. Musical Cultures of World. (5–5–5) Lecture, four hours; discussion, one hour; outside study, 10 hours. Enforced requisite: Music 20C with grade of C or better. Traditional and popular music of many different countries, with introduction to basic ethnomusicological concepts and development of listening and analytical skills. Each course may be taken independently for credit. Letter grading. 20A. Europe and America; 20B. Africa and Near East; 20C. Asia.

M25. Global Pop. (5) (Formerly numbered 25.) (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.

30. Music and Media. (5) Lecture, four hours; discussion, one hour. Exploration of ways music is mediated to people by industry, technologies, and corporations. Survey of leading theorists of media and exploration of case studies. P/NP or letter grading.

M35. Blues, Society, and American Culture. (5) (Formerly numbered 35.) (Same as Global Jazz 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 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.

40. Music and Religion. (5) Lecture, four hours; discussion, one hour. Survey of nature, role, and power of music in religious rituals around world, covering music and rituals of Hinduism, Buddhism, Judaism, Christianity, and Islam, as well as religious traditions of Native Americans and syncretic religious practices in Americas such as African American gospel music,Brazilian Caixa, Cuban Santera, and Haitian voodoo. 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 the most distinctively characteristic. P/NP or letter grading.


M50A-M50B. Jazz in American Culture. (5-5) (Formerly numbered S50, 55A, 55B, 68A, 68B, 68N, 91A-91Z. World Music Studies M50A-M50B.) Lecture, four hours; discussion, one hour. Course M50A is not requisite to M50B. Survey of development of jazz in American culture. Discussion of influential compositional/performance techniques and approaches that distinguish different sub-styles of jazz from one another, as well as key historical figures that shaped development of jazz from its early origins to its current state. 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.

60. J.S. Bach in His World and Ours. (5) Lecture, four hours; discussion, one hour. Examination of life and music of J.S. Bach in historical and cultural context of his era through his musical manifestations in present, including changes in performance styles, scholarly studies, reception, and contemporary fan culture. P/NP or letter grading.


M73. Music and Religion in Popular Culture. (5) (Same as Musicology M73.) Lecture, four hours; discussion, one hour. Survey of popular music in religious 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. Credit for both courses M73 and M173 not allowed. 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.


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. 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

C100. 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, content, fieldwork preservation, and access and 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 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 certain repertoire, refine it, and bring it to concert performance. Students critically engage musical literatures and notion of social contract that forms basis of music making from Asia and from Anguilla. Drawing on 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 in public ethnomusicology emphasis. How music industry functions and how products are created, marketed, and consumed. Basic information on production of recordings and legal issues faced by musicians, students, and scholars who use music in their work. 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), intertribal Indian musical genres (powwow), syncretic religious music, and traditional/historic Pan-Indian music. P/NP or letter grading.


M109. Women in Jazz. (4) (Same as African American Studies M107 and Global Jazz Studies M119.) Lecture, four hours; discussion, one hour. Introduction to development of 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.

C120. Bibliography and Research Methods in Rap Music/Hip Hop Studies. (4) Seminar, three hours. Research and writing on selected topics, including conducting research 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. Readings related to intellectual history of rap music scholarship and allied traditions (including breakdance and graffiti). Exploration of broad range of research methods and archival/library centers specific to hip-hop studies. Concurrently scheduled with course C220. Letter grading.

M128. Exploration in Rhythms. (2) (Formerly numbered 128.) (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 time and rhythm in 20th- and 21st-century advanced jazz, hip-hop, and popular music. Concepts explored include meter, pulse, rhythmic cycles, hemiolas, and polyrhythms. P/NP or Letter grading.

M130. 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 and interacting with professional jazz musicians who answer questions and give musical demonstrations. Analytical resources and historical knowledge of musicians and ethnographers/anthropologists who have written about jazz as cultural tradition. 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, sociocultural, and historical background of country. P/NP or letter grading.

C150. Music and Politics in East Asia. (4) Lecture, four hours. Limited to Ethnomusicology, Music, Music History, World Arts and Cultures, Chinese, Japanese, Korean, and Anthropology majors. The relationship between theory and practice in music in modern China has long had direct and often explicit impact on music sound and context in East Asia. Examination of the role of state, religious, and political figures in influencing musical practices and value in contemporary East Asia. P/NP or letter grading.


C156A-B. Music in China. (4-5) Letter grading. Courses M73 and M173 not allowed. Credit may be regained for credit with approval of the instructor. P/NP or letter grading. C156A. Lecture, four hours; laboratory, three hours; seminar, three hours. Concurrent participation in China music performance ensemble (course 91N or 161N) required. Concurrently scheduled with course C265. Letter grading.


C165A-B. Music of China. (4-5) Letter grading. C156A. Lecture, four hours. Requisite: course 20C. Limited to Ethnomusicology majors. Survey of traditional vocal music, instrumental music, and music genres currently widespread in China, including musical analysis of different genres; examination of contexts in which they exist; integration of both traditional and modern music; emphasis on Confucian and Confucian ideals on music. Concurrently scheduled with courses C256A. Letter grading.

C165B. Music of China. (4-5) Lecture, three hours; laboratory, two hours. Requisite: course C156A. Introduction to variousnotational systems. Analysis of representative music genres and musical instruments.


C159. Music on China’s Periphery. (4) Lecture, four hours; outside study, eight hours. Designed for undergraduate Ethnomusicology, Music, Music History, World Arts and Cultures, Chinese, and Anthropology majors. Study of music from China’s borders and neighboring countries: technical musical characteristics and important contemporary issues related to traditional and modern styles from Mongolia, Uighurs of Xinjiang, Tibet, Tibet-Burman peoples, Hong Kong, and Mongol and Uighur peoples of Taiwan. Concurrently scheduled with course C259. P/NP or letter grading.

C160. Survey of Music in Japan. (4) Lecture, three hours. Survey of main genres of Japanese traditional music, including Gagaku, Buddhist chant, Bwa music, Koto music, Shamisen music, and music used in various contexts and forms. P/NP or 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 community-based instructor, that must be arranged by students and approved by course instructor. May be repeated for credit with instructor permission.

164. World Music Composition. (4) Lecture, three hours; laboratory, three hours; outside study, six hours. Requisites: courses 20A, 20B, 20C. Limited to Ethnomusicology majors. Examination in composition using variety of Western and non-Western musical systems. Final project required. Letter grading.

C165. Selected Topics in Composition. (4) Lecture, four hours; outside study, eight hours. Evaluation of individual and cultural forms and approaches to enable students to develop greater compositional technique and understanding. Ways composers of jazz, European classical, and other musical genres have successfully approached compositional forms. Examination of way in which world music traditions have interfaced with jazz and other types of music to create new musical languages. Use of contemporary, structural paradigms, and intercultural, visual arts, and other sources to develop student compositions. May be repeated for credit. Concurrently scheduled with course C270. 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 CM186, and Music Industry M182.) Lecture, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Musicology majors. Examination of influence of music industry on ways 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 present day. Concurrently scheduled with course CM288. Letter grading.


C184. Public Ethnomusicology. (4) Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology majors and senior USIE Facilitators. Examination of how music industry functions and how products are created, marketed, and consumed. Techniques of pure research, basic and theoretical in nature, contrasted with those of applied research, practical and historic in nature. Concurrently scheduled with course C286. Letter grading.

185. Information Literacy and Research Skills. (1) Tutorial, one hour. Limited to Ethnomusicology majors. Designed to assist students with becoming information literate. How to locate, identify, and critically evaluate and use print and electronic information effectively and ethically. P/NP or letter grading.

186. Senior Recital or Project. (2) Tutorial, one hour. Limited to seniors. Final project for students who, with approval from their faculty advisors, perform one-hour recital or have their compositions performed in one-hour recital. Organization and arrangement of rehearsal schedule with appropriate accompaniment and preparation of program for performance. Grades are assigned in term recital is performed or composition is completed and performed. P/NP grading.

188. Special Courses in Ethnomusicology. (4) Lecture, four hours; outside study, eight hours. Selected topics in ethnomusicology. 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 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.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced prerequisite: course 188SB. Limited to junior 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.

193. Journal Club Seminars: Ethnomusicology. (2) Seminar, two hours; outside study, four hours. Limited to undergraduate students. Reading and discussion of writings on subjects in ethnomusicology. May be repeated for credit. P/NP grading.

195A. Community Corporation 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 with their faculty mentor biweekly and present periodical reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

195B. Community Internships in Public Ethnomusicology. (2 to 4) Tutorial, six to 12 hours. Limited to seniors in public ethnomusicology 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 maximum of 8 units. 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 to develop practical understanding of world music education and application of these theories in elementary and secondary music and social studies classrooms. P/NP or letter grading.

197C. Individual Studies in Ethnomusicology. (3 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 African American Studies. (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.

199. Directed Research or Senior Project in Ethnomusicology. (2 to 4) Tutorial, to be arranged. Limited to junior/senior Ethnomusicology majors. Supervised independent research. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses


201. History of Ethnomusicology. (4) Seminar, three hours; outside study, nine hours. Limited to graduate ethnomusicology students. Basic literature and schools of thought in field of ethnomusicology from late 19th century to 1980s. 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 1980s to present. Letter grading.

C204. Aesthetic and Philosophical Foundations in Systemic Musicology. (3 to 4) Seminar or Tutorial, one hour; outside study, nine hours. Limited to Ethnomusicology majors. Comprehensive overview of critical approaches to aesthetics in systematic musicology. Exploration of aesthetics and philosophy of music, sociocology of music, critical theory, hermeneutics, and music criticism. Concurrently scheduled with course C179. Letter grading.

205. Seminar: Information Technology and Research Skills. (4) Seminar, three hours. Limited to graduate ethnomusicology students. Lecture, demonstration, and practical training. 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 notation of acoustic and non-acoustic understanding of acoustics, ability to represent sounds in various graphic forms appropriate to them, and ability to factor 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 and ideas with their ethnographic or historical data. Reading of several recent ethnographies, mostly about music and possibly historical studies, in tandem with theoretical readings that inform arguments of these books. Letter grading.


208. Seminar: Latin American Music. (4) Seminar, three hours. Review of bibliographic, methodological, and philosophical bases of musical research in Latin America, working from both general and specific perspectives. Exploration of research problems and investigations on specific musical cultures and distinct genres of musical expression. S/U or letter grading.


215A-215B. Ethnomusicological 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 science fields. Letter grading. Concurrently scheduled with course M215A. Late 19th century to 1980s. 215B. 1980s to Present. Letter grading.

216A-216B. Ethnomusicological Methods I, II. (4-4) Seminar, three hours; outside study, nine hours. Limited to graduate ethnomusicology students. Letter grading. 216A. Basic research techniques and perspectives on conducting research and writing it up in ethnomusicology. 216B. Introduction to basic ethnomusicology fieldwork techniques and practices in ethnomusicology.


230. European Music: Politics, Identities, Nationalisms. (4) Seminar; three hours; outside study, nine hours. Designed for graduate students. European classical, popular, and traditional musics, with particular attention to way in which music mirrors, negotiates, and contests politics and practices of nation and other forms of identity, ideas developed in other domains of discourse and practice such as philosophy, history, literature, art, and folklore. Examination of way in which people, and policies, have used music to affect political processes involved in contesting and resolving tensions created 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.

C236B. 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 films, and analysis of music, students gain 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 C140. Letter grading.


C241. 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 background, source 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 C141. S/U or letter grading.

248. Classical Music of India. (4) Lecture; three hours; outside study, nine hours. Requisite: course 146 or 147. Study of history, theory, and practice of north and south Indian classical music. Emphasis on music history and traditional theory and analysis of present-day forms, styles, techniques, and musical instruments. Concurrent participation in Indian performance group (course 91F) required. Letter grading.

C250. Music and Politics in East Asia. (4) Lecture; four hours. Designed for graduate students. Political imperatives have long had direct and often explicit impact on musical 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 C174. Letter grading.


C255. Intangible Cultural Heritage Worldwide. (4) Lecture; three hours. Designed for ethnomusicology, musicology, and anthropology graduate students. Survey of the history, theory, and practices for evaluating intangible cultural heritage. Through critical reading of publications by scholars, officials, and culture-bearers involved in intangible cultural heritage policy and practice, examination of history of international discourses of intangible and intangible heritage; pioneering roles of Japan, South Korea, and UNESCO in making intangible cultural heritage focal point of much cultural policy; contributions of United Nations and UNESCO; model legal instruments, and role of UNESCO; nation-state nationalisms, regionalism, ethnicity, and indigeneity in creating intangible cultural heritage policies in different settings; U.S. equivalents to intangible cultural heritage policies and practices in other countries; roles of private individuals, community initiative, and professional organizations in cultural preservation schemes; and related issues of sustainability. Concurrently scheduled with course C165. Letter grading.


C259. Music on China’s Periphery. (4) Lecture; four hours; outside study, eight hours. Designed for graduate Ethnomusicology, Music, Musicology, and World Arts and Cultures majors. Survey of music from China’s border regions and neighboring countries; technical musical characteristics and important contextual issues related to traditional and modern styles from Mongolia, Uighurs of Xinjiang, Tibet, Tibetans, and Burmese peoples, Hong Kong, and indigenous peoples of Taiwan. 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. Designed to foster in-depth understanding of gender in study of music as culture. Topics range from ethnography of gender and sexuality, (de)construction of musical resistance, and gender representation to gendered politics via musical production. S/U or letter grading.

262. Musical Ethnography. (4) Seminar; three hours; outside study, nine hours. Examination of selected book-length ethnographies, most published in last 10 years, as both literary genre and research procedure. S/U or letter grading.

263. Perspectives in Popular Music Research. (4) Seminar; three hours. Investigation of theoretical paradigms, issues, and research 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.

264. Urbanism and Music. (4) Seminar; three hours; outside study; nine hours. Theoretical and methodological issues in music and culture that affects and is affected by music making, S/U or letter grading.

265. 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’s religions. S/U or letter grading.

266. Charles Seeger’s Life and Thought. (4) Seminar; three hours; outside study; nine hours. Cross-reference of Charles Seeger’s (1888 to 1979) major writings and influence on three fields he helped to found (ethnomusicology, systematic musicology, historical musicology), as well as his interest in the American and European composition in 20th century. S/U or letter grading.

267. 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.

268. Modernity and Musical Experience. (4) Seminar; three hours; outside study, 10 hours. Limited to graduate students. Evaluation of the postmodern subject-centered musical ethnography to account for fragmented musical experience in modern world. Consideration of local and world music in relation to postmodernity, gender, in the context of self and subject, power, and media images. Letter grading.

C270. Selected Topics in Composition. (4) Lecture, four hours; outside study, eight hours. Limited to graduate students. Evaluation of musical concepts and approaches to enable students to develop greater compositional technique and understanding. Ways composers of jazz, European classical, and other musical genres have successfully approached use of extended compositional forms. Examination of way in which world music traditions have interfaced 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 C271. 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 instruments, psychoacoustics, 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. Selected topics 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.

279. Seminar: Systematic Musicology. (4) Seminar; three hours. Requisite: course 170. Exploration of specific topics in general field of systematic musicology concerning disciplines such as structuralism, aesthetics, music perception, philosophy, organology, sociology, and experimental approaches. May be repeated for credit. S/U or letter grading.

280. Teaching World Music and Music Appreciation. (4) Seminar; three hours. Designed for ethnomusicology courses or concurrent enrollment in course 20A, 20B, or 20C. Designed for ethnomusicology and musicology graduate students. Practical overview of current pedagogical techniques and texts used in teaching introductory music survey courses, specifically music appreciation and general world music. Letter grading.

281A-281B. Seminars: Field and Laboratory Methods in Ethnomusicology. (6–6) Seminar; three hours; laboratory; two hours. Requisites: courses 201, 202. Fieldwork concepts and methods using technical equipment, conducting interviews, dealing with ethical issues, and designing research projects. S/U or letter grading.

282. Seminar: Analysis. (6) Seminar; three hours. Requisite: course 180. Designed for graduate ethnomusicology students. Introduction of techniques used in ethnomusicological analysis, including transcription and notation, with emphasis on analysis of musical performance and music events. S/U or 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 practice in different civilizations. S/U or letter grading.

286. Public Ethnomusicology. (4) Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology majors. How music industry functions and how products are created, marketed, and consumed. Techniques of pure research, basic and theoretical in nature, contrasted with those of applied research, practical and policy-oriented in approach. Concurrently scheduled with course CM182. 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, 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 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 fellowship 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 or letter grading.

292A-292Z. Seminars: Special Topics in Ethnomusicology. (1 to 4) Tutorial, to be arranged. 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 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.

495B. Teaching with Technology. (2) Seminar, three hours; outside study, three hours. Limited to graduate ethnomusicology students. Training in presentation of course material using electronic teaching portfolio. S/U grading.

598. Directed Individual Studies. (2, 4, or 6) Tutorial, to be arranged. Only 4 units may be applied toward MA minimum course requirements. S/U or letter grading.

599. 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.

Overview
The Department of European Languages and Transcultural Studies (ELTS) provides advanced training in the cultural and linguistic traditions of Europe, emphasizes 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 underscoring 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 majors 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. We also encourage study abroad, internship opportunities, and organize professionalization seminars.

Undergraduate Study
The department provides advanced training in the cultural and linguistic traditions of Europe, emphasizes 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 organiza-
The European Languages and Transcultural Studies 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

Preparation for the Major

Required: one course from French 6, German 6, Italian 6, Scandanavian 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, 77, Scandanavian 40, 40W, 50, 50W, or 60W; one Experimental Humanities (Digital, Environmental, Medical, and Urban) course selected from Digital: 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.

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.

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 Scandanavian 161 through 167.
- Experimental Humanities: Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, or Italian 124.

European Languages and Transcultural Studies with French and Francophone BA

Learning Outcomes

The European Languages and Transcultural Studies with French and Francophone major has the following learning outcomes:

- Demonstrated advanced proficiency in French
- 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 French
- Ability to interrogate, analyze, and discuss literary and filmic production
- Evidence of strong oral and writing skills

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, 77, Scandanavian 40, 40W, 50, 50W, 60W; one Experimental Humanities (Digital, Environmental, Medical, and Urban) course selected from Digital: 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.

Transfer Students

Transfer applicants to the European Languages and Transcultural Studies with French and Francophone major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of French and any one course on European literature, culture, film, or media.
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

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, 77, Scandinavian 40, 40W, 50, 50W, or 60W; one Experimental Humanities (Digital, Environmental, Medical, and Urban) course selected from 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.

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.

Policies
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 Italy
- Ability to interrogate, analyze, and discuss literary and filmic production
- Evidence of strong oral and writing skills

Policies
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.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required:
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: Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, or Italian 124.
- Required Elective Courses: Three courses selected from French 100 through 169, 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.

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.

European Languages and Transcultural Studies / 459
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, 57, Scandinavian 40, 40W, 50, 50W, 60W; one Experimental Humanities (Digital, Environmental, Medical, and Urban) course selected from Digital: 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.

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.

The Major

Required:

Advanced language requirement: Italian 100.

One course selected from 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: Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English M118E, M118F, or Italian 124.

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.

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 in a global context, with a particular expertise in the Scandinavian region
- Ability to interrogate, analyze, and discuss literary and filmic production
- Evidence of strong oral and writing skills

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, 77, Scandinavian 40, 40W, 50, 50W, 60W; one Experimental Humanities (Digital, Environmental, Medical, and Urban) course selected from Digital: 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.

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.

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, 121, or Scandinavian 161 through 167.

Experimental Humanities: Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English M118E, M118F, or Italian 124.

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

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.

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 ques-
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, 77, Scandinavian 40, 40W, 50, 50W, or 60W.

Required Upper-Division Courses (20 units): Three upper-division courses in European literature, culture, film, or media with three courses selected from the following four areas:

- European Film and Media: French 141, 142, German 103, 104, Italian 121, or Scandinavian 161 through 167.
- Experimental Humanities: Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, or Italian 124.

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 M158, 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, 77, Scandinavian 40, 40W, 50, 50W, or 60W.

Required Upper-Division Courses (20 units): Three upper-division courses in European literature, culture, film, or media with three courses selected from the following four areas:

- European Film and Media: French 141, 142, German 103, 104, Italian 121, or Scandinavian 161 through 167.
- Experimental Humanities: Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, or Italian 124.

Upper-Division Electives: Two upper-division elective courses (minimum 8 units) selected from French.

One upper-division required course must be taught in French.

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. Successful completion of the minor is indicated on the transcript and diploma.
**European Languages and Transcultural Studies**

**Required Lower-Division Courses (8 units):**
- An overall grade-point average of 2.0 or better.
- To enter the minor, 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.

**European Culture:**
- European Film and Media: French 141, 142, German 103, 104, Italian 121, or Scandinavian 161 through 167.
- Experimental Humanities: Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, or Italian 124.

**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 taught 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.

**Required Upper-Division Courses (20 units):**
- An overall grade-point average of 2.0 or better.
- Each minor course must be taught 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 upper-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 taught 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**

**Program Requirements**
- Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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**

**Program Requirements**
- Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Italian MA, CPhil, PhD**

**Program Requirements**
- Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Scandinavian MA**

**Program Requirements**
- Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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.
European Languages and Transcultural Studies / 463

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. Individual honors contract required. P/NP or letter grading.

Graduate Courses

596. Directed Individual Study or Research in Dutch. (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 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.

European Languages and Transcultural Studies

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Exploration of birth of modern nations from their medieval roots to their present, including novels by such writers as Multatuli, Couperus, Hermans, Mulisch, and Reve and poetry by Van Oers and Spinoza. Letter grading.

2. Elementary French. (4) Lecture, three hours; discussion, one hour. Junior/senior. Foundation of French. Introduction to standard language of Nether- lands and one of three standard languages of Belgium. Practice in grammar, listening, speaking, reading, and writing. P/NP or letter grading.


121. Introduction to Modern Dutch Literature. (4) Discussion, three hours. Required: course 103B or 120. Selected works of literature of Netherlands and northern European countries 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/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. Individual honors contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter 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 Nether- lands and one of three standard languages of Bel-gium. Practice in grammar, listening, speaking, reading, and writing. P/NP or letter grading.


104A-104B. Accelerated Dutch. (6–6) Lecture, four hours; 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, Couperus, Hermans, Mulisch, Multatuli, and Reve and selected poets such as Campert, Gezelie, Gorter, Kloos, Lucebert, Nijhoff, Van Ostaeyen, and Woman. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Exploration of birth of modern nations from their medieval roots to their present, including novels by such writers as Multatuli, Couperus, Hermans, Mulisch, and Reve and poetry by Van Oers and Spinoza. Letter grading.

2. Elementary French. (4) Lecture, three hours; discussion, one hour. Junior/senior. Foundation of French. Introduction to standard language of Nether- lands and one of three standard languages of Belgium. Practice in grammar, listening, speaking, reading, and writing. P/NP or letter grading.

8. Intensive First-Year French. (12) Lecture, 10 hours; media laboratory, three hours. Enforced requisite: course 3. Intensive course equivalent to first two terms of intermediate French and designed to improve proficiency in reading, writing, and speaking. Offered in summer only. P/NP or letter grading.

9. Intensive Second-Year French. (8) Lecture, 10 hours; media laboratory, three hours. Enforced requisite: course 3. Intensive course equivalent to first two terms of intermediate French and designed to improve proficiency in reading, writing, and speaking. Offered in summer only. P/NP or letter grading.

11. Medieval Foundations of European Civiliza- tion. (4) Formerly numbered French 112.) Lecture, three hours. Intensive study of key concepts of the European Middle Ages (500 to 1500) and major figures that played a role in shaping European civilization. P/NP grading.

112. Capstone Seminar. (4) Seminar, three hours. Required of all European Languages and Transcultural Studies majors. Students engage in analysis, critique, interpretation, historical research, and contextualiza- tion with eye to culminating 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 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. Indi- vidual 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 honors contract required. 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. Indi- vidual 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 honors contract required. P/NP or letter grading.

French

Lower-Division Courses

1. Elementary French. (4) Lecture, five hours. En- forced requisite: course 1 with grade of C– or better. P/NP or letter grading.

2. Elementary French. (4) Lecture, five hours. En- forced requisite: course 1 with grade of C– or better. P/NP or letter grading.

3. Elementary French. (4) Lecture, five hours. En- forced requisite: course 2 with grade of C– or better. P/NP or letter grading.


14. Introduction to French Culture and Civilization in English. (5) Lecture, three hours; discussion, one hour. Honors content noted on transcript. Letter grading.

16. Society and Self in Early Modern France. (5) Lecture, three hours; discussion, one hour. Honors content noted on transcript. 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.
Upper-Division Courses


104. Theory and Correction of Diction. (4) Lecture, three hours. Enforced requisite: course 6. Study of individual sounds (vowels, consonants, and semi-vowels), including rhythm, intonation, and phrasing, and of learning sound—spelling correspondences to help sight read accurately. Thorough study of symbols of International Phonetic Alphabet (IPA) to give students tools to work on pronunciation systematically. Standard French serves as model, with examination of pronunciation changes and various dialects that are spoken in Francophone world to improve listening without intervention. May be repeated for credit with topic change. P/NP or letter grading.


114A. Medieval and Renaissance Literature. (5) Lecture, three hours. Requisite: course 12. Masterpieces of medieval and Renaissance literature, including examples of epic (La Chanson de Roland), romance

(Chrétiens de Troyes: Yvain, and Renaissance prose and poetry (including Marot, Du Bellay, Ronsard, Balzac, Marguerite de Navarre, and Montaigne). 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 romance, history of medieval warfare, comedy, 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 culture and literature, including la Pléiade and 18th-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 aspects. 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 rhetorical writings. 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 surrealism, literature from 1915 to 1945, post-World War II literature, existentialism, new novel, theater, and poetry. May be repeated for credit with topic change. P/NP or letter grading.

121. Studies in Francophone Cultures and Literatures. (4) Lecture, three hours. Enforced requisite: course 5. Taught in French. Study of Francophone cultures and literatures, including works by poets, playwrights, and novelists from Caribbean, North Africa, Quebec, and sub-Saharan Africa, migrant narratives, and colonialism and postcolonial studies. May be repeated for credit with topic change. P/NP or letter grading.


137. French and Francophone Intellectual History. (4) Lecture, three hours. Requisite: course 12 or 100. Taught in French. Exploration of themes that address particular problem of French literature, civilization, or ideas. May be repeated for credit with topic change.

138. Contemporary French Theory. (4) Lecture, three hours. Requisite: course 12 or 100. Taught in French. Study of French theorists (Barthes, Baudrillard, Cixous, Derrida, Foucault, Irigaray) and major works of contemporary French literature, attention to its influence on and application to literary and nonliterary texts. May be repeated for credit with topic change. P/NP or letter grading.

165. Paris: Study of French Capital. (4) Lecture, three hours. Enforced requisite: course 5. Taught in French. 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, Emile Zola, Marcel Proust, Louis-Ferdinand Céline, and others.

140. 19th Century. (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.

142. Francophone Cinema. (4) Lecture, three hours. Study of Francophone cinema in France and Francophone world, including key Francophone (Africa, Caribbean, postcolonial communities in France) cinema and cinematographers in generic, thematic, and sociocultural aspects. May be repeated for credit with topic change. P/NP or letter grading.


144. French and Francophone Novel in Translation. (4) Lecture, three hours. Study of Francophone novels. May be repeated for credit with topic change. P/NP or letter grading.


147. French and Francophone Intellectual History. (4) Lecture, three hours. Taught in French. Readings by Francophone writers in books, articles, and interviews. May be repeated for credit with topic change. P/NP or letter grading.

166. Paris: Study of French Capital in Translation. (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 postcolonial Francophone studies. P/NP or letter grading.

167. French and Francophone Intellectual History. (4) Lecture, three hours. Taught in French. Readings by Francophone writers in books, articles, and interviews. May be repeated for credit with topic change. P/NP or letter grading.

# Graduate Courses

**20. Contemporary French Theories.** (4) Lecture, three hours. Introductory study of French structuralist and poststructuralist thought in literature, linguistics, psychoanalysis, anthropology, philosophy, and feminism, that may include texts by Althusser, Barthes, Deleuze, Derrida, Foucault, Genette, Igaray, Kristeva, Lacan, Lyotard, and others. P/NP or letter grading.

**201. Techniques of Literary Analysis.** (4) Lecture, three hours. Practice in close analysis of literary texts, including location of de-texts. S/U 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 discourses and theories such as sociology and structuralism, city, revolution, avant-garde strategies, media, diaspora during postwar modernization, Algerian War, May 68, and beyond. Theorists include Barthes, de Certeau, Bourdieu, Brillard, Lyotard, Ross, Rey Chov, Vinilo. S/U or letter grading.

**203. Contemporary Francophone Literature.** (4) Lecture, three hours. Study of Francophone African, Caribbean, Vietnamese, or Quebec literatures and cultures, with specific attention to issues of cultural contact, language, colonialism, antimperialism, nationalism, racism and dissidence, and postcolonial theory. S/U or letter grading.


**205. Studies in Cinema and Literature.** (4) Lecture, three hours. Discussion of selected topics in French and Francophone cinema and literature. S/U or letter grading.

**207. Studies in History of Ideas.** (4) Seminar, three hours. Particular problems in French literature and ideas. May be repeated for credit. S/U or letter grading.

**208. Studies in Literary Criticism.** (4) Seminar, three hours. Readings in literary criticism, theory, and literature from any period of French literature. May be repeated for credit. S/U or letter grading.

**209. Studies in Literary Genre.** (4) Seminar, three hours. Advanced research and study of literary genres such as poetry, fiction, and autobiography, or performance and of theory of these genres. S/U or letter grading.

**210. Paleography of Latin and Vernacular Manuscripts.** (4) Lecture, five hours; laboratory, one hour. Enforced requisite: course 2. P/NP or letter grading.

**215. 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 and collaborate with professor to provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

**218. Enlightenment.** (4) Lecture, three hours. Reading in 18th-century French literature and thought; works of Voltaire, Rousseau, Montesquieu, Diderot, Danton, and Robespierre. P/NP or letter grading.

**220. 20th Century.** (4) Lecture, three hours. Overview, both historical and analytical, of 20th-century French literature set in context of several key critical topics that interrogate canonical interpretation. Letter grading.

**226. Research Methods and Writing.** (2) Seminar, two hours. Advanced study of current topics in literary and cultural analysis. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

**235. Teaching Apprentice Practicum.** (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel or faculty member, in association with 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 French at College Level.** (4) Seminar, three hours; discussion, one hour. Designed for graduate students. Theory and practice of language teaching. S/U grading.

**496. Directed Individual Studies or Research.** (2 to 4) Tutorial, to be arranged. S/U or letter grading.

**595. Preparation for Seals and Voice Review or PhD Qualifying Examinations.** (2 to 8) Tutorial, to be arranged. May be repeated for maximum of 16 units. S/U grading.

**698. Research for and Preparation of MA Thesis.** (2 to 4) Tutorial, 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; laboratory, one hour. P/NP or letter grading.

2. **Elementary German.** (4) Lecture, five hours; laboratory, one hour. Enforced requisite: course 1. P/NP or letter grading.

3. **Elementary German.** (4) Lecture, five hours; laboratory, one hour. Enforced requisite: course 2. P/NP or letter grading.

4. **Intermediate German.** (4) Lecture, five hours; laboratory, one hour. Enforced requisite: course 3. 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.

8. **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.

9. **Great Works of German Literature in Translation: Romanticism to Present.** (5) Lecture, three hours; discussion, one hour. Study and analysis of selected masterworks in English translation, including authors such as E.T.A. Hoffmann, Heine, Fontane, Rilke, Kafka, Brecht, Thomas Mann, Hesse, Grass, Bühl, and Christa Wolf. May not be applied toward completion of major in German. P/NP or letter grading.

10. **6. Figures Who Changed World: Cosmopolitanisms Within a Global Context.** (5) Lecture, three hours; discussion, one hour. Introduction to strains of German philosophy and political thought that focus on cosmopolitanism. Exploration of different historical and philosophical engagements with cosmopolitan projects. P/NP or letter grading.

11. **Holocaust in Film and Literature.** (5) Lecture/ screenings, five hours; discussion, one hour. History of Holocaust and its present memory through examination of challenges and problems encountered in trying to imagine its horror through media of literature and film. P/NP or letter grading.

12. **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 to global city. P/NP or letter grading.

13. **8. Lower-Division Seminar.** (3) Seminar, three hours. Course of variable content limited to topics of current interest and offered when sufficient staff member is available. P/NP or letter grading.
115. 10th-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, including human and non-human. 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, including Heidegger, Gadamer, Jaspers, and Frankfurt School theorists. Letter grading.

117. German Exile Culture in Los Angeles. (4) Lecture, three hours. Taught in English. Cultural and historical exploration of exile site of creative activity for 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 or 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 sociological. Examines vexed relationship between history and memory. Examination of survivor testimony through classic memoirs in field, such as Primo Levi’s *The Drowned and the Saved* and the *Eva* tetralogy of Elie Wiesel. Collaboration with Jewish Family Services, 1939 Club, and Los Angeles Museum of Holocaust, students meet and work with Holocaust survivors and undertake collaborative research projects 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. Taught in English. Analysis of works that represent process of Jewish assimilation, disenfranchisement, and extermination, including authors such as Mendelssohn, Heine, Kafka, Paul Celan, Nelly Sachs, Anne Frank, and others. Letter grading.

155. Advanced German Language through Cultural Immersion. (4) Lecture, three hours. Requisite: course 152 or 153. Taught in German. Literature and cultural transfer to be thematized. P/NP or letter grading.

158. Introduction to Study of Literature. (4) Lecture, three hours. Taught in German. Survey of German and/or divided/unified Germanies). Letter grading.

169. Still Alive: The Drowned and the Dying. (4) Lecture, three hours. Taught in German. Work 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 several 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, reconstructing/preserving sites of memory in postwar Germany, and headscarf and niqab integration in contemporary Germany). Letter grading.

170. Goethe. (4) Lecture, three hours. Requisite: course 152 or 153. Taught in German. Reading and discussion of representative works (except Faust) from Goethe’s early period (Die Leiden des jungen Werthers) through maturity and old age (West-östlicher Divan). Students work with digital humanities methods to improve German language competence and evaluate Goethe’s influence on Western intellectual history. Letter grading.

173. Advanced Study of Modern Literature. (4) Lecture, three hours. Enforced requisite: course 152 or 153. Taught in German. Literature after 1945 in German-speaking countries, including is-
sues such as national borders, ethnic identity, gender relations, and commercialization of culture. Letter grading.

175. Intercultural Germany: Literature, Politics, Migration, and Culture. (4) Lecture, three hours. Taught in German. Most readings in German; some theoretical readings in English. Exploration of issues surrounding immigration and intercultural identity in Germany since 1960, with focus on period after 1990. Examination of various cultural spaces, practices, and receptions as staged in literary and nonliterary texts, with emphasis on constructions of ethnicity, nation, race, class, and gender. Analysis of several political and cultural debates that dominated media and public discussions in Germany and Europe for several weeks. Discussion of several literary texts by Turkish German and other minority/intercultural writers. Examination of hip-hop minority music and culture as voices in political debates. Exploration of contemporary controversies around Islam in Germany. Reading of several theoretical pieces that examine relationships between immigration, globalization, culture, and identity. P/NP or letter grading.

187. Undergraduate Seminar. (4) Seminar, three hours. Required of all German majors who are candidates for general secondary instructional credential. Content varies by instructor. Participation in one group (750 to 1050). Emphasis on developing facility in reading, discussion, and writing in German. 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 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 888 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. Exploratory topical reading thoroughly developed. Emphasis on reading as 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 reading 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: German. (4) Seminar, three hours. Requisite: course 6. Taught in German. May be taken in conjunction with 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 advisor. P/NP or letter grading.

191C. Capstone Seminar. (2) Seminar, three hours. Limited to senior German majors. Collaborative discussion of and reflection on courses already taken for major, drawing out and synthesizing larger themes and culminating in a final project. May be taken in conjunction with one course numbered 140 or higher. Letter grading.

197. Individual Studies in German. (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.

199. Directed Research or Senior Project in German. (4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under supervision of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

201C. Theories of Literary Interpretation. (4) Lecture, three hours. Advanced analysis and discussion of various models of literary interpretation and schools of thought such as hermeneutics, psychoanalytic criticism, social historical approaches, semiotics, structuralism, and poststructuralism. Topics vary with instructor. Letter grading.

202A. Middle High German. (4) Lecture, three hours. Introduction to Middle High German language, with particular emphasis on developing facility in reading. Study of grammar, syntax, and vocabulary combined with introduction to poetic forms and cultural context. Letter grading.

202B. Readings in Middle High German Literature. (4) Lecture, three hours. Introduction to medieval German literature and literary history and use of contemporary theory in study of medieval texts. Continued practice in reading Middle High German, although most texts to be read in modern translation. Letter grading.

204. Early Modern German Literature. (4) Lecture, three hours. Selected readings from 1500 to 1700, with introduction to development of German as modern literary language and to literary genres and cultural contexts. Three Years' War on German literary production and reception in German baroque. Letter grading.

206. Studies in Enlightenment Literature and Culture. (4) Lecture, three hours. Analysis of selected works and theories of German Romantics such as Friedrich Schlegel, Novalis, and Hoffman, with attention to relationship between Romanticism and other periods. Letter grading.


213. Topics in Literature and Film. (4) Lecture, three hours. Focus on two different modes of cultural representation, examination of topics in German literature and film from Weimar to neon Hollywood. Study of media theory, feminist film theory, and interrelationships between film, literature, and social history. Letter grading.

217. History of German Language. (4) Discussion, three hours. Historical survey of development of standard literary German language from time of Indo-European unity through proto-Germanic, West Germanic, medieval period, Renaissance, Baroque period, and Enlightenment until its final codification at end of 19th century. S/U or letter grading.


231. Gothic. (4) Discussion, three hours. Systematic study of phonology and grammar of Gothic language, with readings in Wulfila’s translation of Bible and introduction to history of Gothic and its place in development of modern European languages. 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 (circa 750 to 1050). Exploration of interpretation of these documents and identification of dialects used in their composition. S/U or letter grading.


C238. Linguistic Theory and Grammatical Description. (4) Lecture, three hours. Enforced requisite: course 140 or Linguistics 20. Taught in English with generous accommodation for students enrolled (e.g., West Germanic problem and structure of Dutch and German, considered from theoretical frameworks such as sign-oriented linguistics, functional linguistics, discourse grammar, and cognitive linguistics. Discussion of formal linguistic approaches. Concurrently scheduled with course C142. Graduate students meet as group one additional hour each week and write research papers of greater length and depth. Letter grading.

251. Seminar: Germanic Linguistics. (4) Seminar, three hours. Current topics in synchronic or diachronic linguistics, such as specific issues in generative grammar, sociolinguistics, dialectology, or language contact. Letter grading.

252. Seminar: Historical and Comparative Germanic Linguistics. (4) Seminar, three hours. Topics selected from field of historical German phonology and syntax according to needs and preparation of students enrolled (e.g., West Germanic problem and classification of Germanic languages, development of Germanic verbal and nominal morphology, proto-Germanic syntax). S/U or letter grading.


256. Seminar: Enlightenment. (4) Seminar, three hours. Selected problems in cultural, literary, and philosophical history. May include modern critiques of Enlightenment thought. Letter grading.

257. Seminar: Age of Goethe. (4) Seminar, three hours. Selected topics in literature and culture between 1775 and 1832, with special emphasis on work of Goethe and Schiller as it relates to philosophical texts such as Hegel’s Phänomenologie des Geistes or as it relates to historical events such as French and American Revolutions. Letter grading.

258. Seminar: Romanticism. (4) Seminar, three hours. Discussion of specific author or topic from Romantic period, possibly in close connection with course 208. Credit review of secondary works. S/U or letter grading.

260. Seminar: Modern Italy. (4) Seminar, three hours. In-depth analysis of one particular issue in pre-1945 German literature and culture. Letter grading.

261. Seminar: Contemporary Literature. (4) Seminar, three hours. In-depth analysis of one particular issue in 1945 German literature and culture. Letter grading.

263. Seminar: Literary Theory. (4) Seminar, three hours. Special focus on particular theoretical school or interpretive paradigm. Content varies with instructor. Letter grading.

264. Topics in Communicative, Cognitive, and Functional Approaches to Linguistic Analysis. (4) Seminar, three hours. Requisite: course C142 or C238. Readings, discussion, analyses, and validation procedures and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

265. German Philosophy. (4) Seminar, three hours. German philosophical tradition is one of most influential, difficult, and problematic Western world has known. Beginning with Kant’s Critique of Pure Reason and continuing through Hegel, Marx, Nietzsche, and Heidegger to Arendt and thinkers of Frankfurt school, German philosophers have explored, more deeply and rigorously than any other Western thinkers, nature and limits (if any) of human mental activity. Results have been basic to social, political, and aesthetic theory as well as to philosophy itself. Exploration of thought of one member of that tradition by concentrating yearly on one exemplar work. 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. Approaches to Foreign Language Pedagogy. (4) Seminar, one hour; discussion, two hours. Issues include development of current theories of second-language acquisition, effects of these theories on language teaching, psycholinguistics, sociolinguistics, assessment techniques, use of multimedia in foreign language pedagogy, origin of syllabus for foreign language courses. S/U grading.

596. Directed Individual Study or Research. (4) Tutorial, three hours. To be arranged with faculty member who directs study or research. Required research paper must be filed with department chair. S/U grading.

597. Preparation for MA Comprehensive Examinations or PhD Qualifying Examinations. (4) Tutorial, three hours. To be arranged with faculty member who directs examination preparation. S/U grading.


599. Research for and Preparation of PhD Dissertation. (4 to 12) Tutorial, three hours. To be arranged with faculty member who directs study. May be repeated. S/U grading.

Italian

Lower-Division Courses

1. Elementary Italian—Beginning. (4) Lecture, five hours. P/NP or letter grading.


9. 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. 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.

42A. Italy through Ages in English: Saints and Sinners in Early Modern Italy. (5) Lecture, four hours; discussion, one hour. Cultural and historical issues of Italian history, culture, and society in early modern Italy. Topics may include Vico, Goldoni, Alfieri, Beccaria, Rosmini, and other authors.

42B. Italy through Ages in English: Modern and Contemporary Italy. (5) Lecture, four hours; discussion, one hour. Cultural and political developments from 18th century to present. Topics include Beccaria and Mazzini, political and religious absolutism of Garibaldi, Italian Risorgimento, national liberation, and unification; Lombrasso and criminology in new Italy; Mussolini and Fascism; Gramsci and Communism; Italian Catholicism; Berlusconi and media; migration and today’s multiethnic Italy. Assigned works include relevant literature and memoirs, music, and film, future and past, art, and organized crime fiction and film. P/NP or letter grading.

42C. Italy through Ages in English: Food and Literature in Italy. (5) Lecture, four hours; discussion, one hour. Prose of Italian history and culture through analysis of Italian food and literary texts. Special emphasis on late Middle Ages, Renaissance, and Risorgimento. P/NP or letter grading.

46. Italian Cinema and Culture in English. (5) Lecture/screencast, five hours; discussion, one hour. Special topic in Italian culture and cinema as reflected in Italian literature. Screening of films, documentaries, and TV shows. Emphasis on analysis of primary sources and secondary literature. P/NP or letter grading.

50A-50B. Masterpieces of Italian Literature in English. (5-5) Lecture, four hours; discussion, one hour. P/NP or letter grading.

50A. Middle Ages to Baroque. Leading philosophers, sociopolitical issues in Europe, examined in authors such as St. Francis, Dante, Boccaccio, Petrarck, Lorenzo de Medici, Machiavelli, Castiglione, Ariosto, and Tasso.

50B. Enlightenment to Postmodernity. Comparative study of major literary texts and their adaptations into different forms of public spectacle, including theater, opera, and film. Works may include Puccini’s Rossini, Verdi, Puccini, Pirandello, Calvino, Ortese, Zavattini, de Sica, and Taviani Brothers. Emphasis on development of ideas of spectacle.

77. Encounters between Christianity, Islam, and New Worlds in Atlantic Discovery. (6) Lecture, five hours; discussion, one hour. Examination of cultural, religious, and racial differences in early modern world of Italy, America, Africa, and Ottoman Empire. Materials include films, artworks. Dante’s Divine Comedy, Qur’an, Arab chronicles of Crusades, travel logs and letters of Christopher Columbus, Italian Renaissance epic poems, and anticolonial polemics. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division core course lecture. Exploration of topics in greater depth through supplementary 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


102A-102B-102C. Italian Cultural Experience in English. (4-4-4) Lecture, three hours. Study of cultural development of Italy. P/NP or letter grading. 102A. Roots of Western civilization; social and artistic achievements of communal society; Marco Polo, Dante, Boccaccio, Giotto, rise of Italian merchant class. 102B. Renaissance discovery of human genius; crucial period between Machiavelli and Galileo, leading Italy and Europe to scientific revolution. 102C. Birth of Italian nation from wars of independence to foundation of modern republic, delineated through narrative and cinema in historical context.

103A. Introduction to Classic Italian Literary and Cultural Studies. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Selected classic works of Italian literature, theater, art, and culture from early medieval era to 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, Petrarch, Boccaccio, Saint Catherine of Siena, Machiavelli, Giotto, Botticelli, Michelangelo, Leonardo, Caravaggio, Gasparo Stampa, Veronica Franco, Ariosto, Tasso, and Galileo. P/NP or letter grading.

103B. Introduction to Modern Italian Literary and Cultural Studies. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Selected modern works of Italian literature and culture from Enlightenment to present. 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 Vico, Goldoni, Alfieri, Beccaria, Rosalia Carabina, Piranese, Tiepolo, Leopardi, Marzoni, Akep, Goldoni, Tacchi Venturi, Modigliani, De Chirico, Calvino, Ortese, Pasolini, Franco Rame, and Dario Fo. P/NP or letter grading.

110. Dante in English. (4) Lecture, three hours. Close study of one of world’s greatest literary works, particularly of his masterpiece, Divine Comedy, the archetypal medieval journey through the afterworld. P/NP or letter grading.
113. Dante’s La Divina Commedia. (4) Lecture, three hours. Enforced prerequisite: course 100. Taught in Italian. Study of medieval philosophy, religion, and politics in La Divina Commedia, greatest literary achievement of the age. P/NP or letter grading.

114B. Middle Ages: Medieval Humor, Formalism, and Society. (4) Lecture, three hours. Novelty of Boccaccio’s witty and comic masterpiece, Decameron, analyzed within context of moral and social codes of culture of time. P/NP or letter grading.

116A-116B. Italian Renaissance. (4–4) Lecture, three hours. P/NP or letter grading. 116A. Renewal of Art and Thought. Study of Quattrocentro and its representatives in arts and humanitarian thought (i.e., Mantegna, Botticelli, Castiglione). Power and Imagination in Renaissance. Study of artistic work of Leonardo, Raffaello, Michelangelo, Titian, and literary masterpieces of Machiavelli, Castiglione, Ariosto, Tasso, in world molded by powerful political forces, such as Roman Papacy and Medicis, Gonzaga, and D’Este courts.

120. Modern and Contemporary Literature. (4) Lecture, three hours. Analysis of novels, short fiction, poetry, and theater with modern and contemporary thought, politics, and culture. Authors may include D’Annunzio, Aleramo, Pirandello, Ungaretti, Montale, Pasolini, Crispi, Morante, Ginsburg, Calvino, Fo, Eco, Bontade, and Tabucchi. P/NP or letter grading.

121. Literature and Film. (4) Lecture, three hours. Comparative study of specific literary works and their adaptation into film and of different techniques in two media and forms of expression. Texts include literary works, screenplays, and works on literary and film theory. P/NP or letter grading.

122. Italian Theater. (4) Lecture, three hours. Study of works for stage from Renaissance to present, including examples of opera and questions pertaining to acting, staging, and performance. May include texts by Machiavelli, Arietti, Alberti, Goldoni, Verdi, Puccini, D’Annunzio, Amelia Rosselli, Dacia Maraini, Dario Fo, and Tabucchi. Three hours. P/NP or letter grading.

123. Modern Italian Cultural Studies. (4) Seminar, three hours. Reading, research, and writing on various cultural aspects of modern and contemporary Italy. Examination of contemporary Italian food 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 Italian food, food traditions, and literary and visual works. Emphasis on late 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. Requisite: course 6. Taught in Italian. Introduction to traditional Italian opera as means of appreciating culture of Italy, art form of opera, and study of Italian 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.


140. Italian Novella from Boccaccio to Basile in Translation. (4) Lecture, three hours. Analysis of development of Italian novella in its structural, historical, and folk material. Special emphasis on how Italian novella influenced other European literatures. P/NP or letter grading.

150. Modern Fiction in Translation. (4) Lecture, three hours. Select issues in 20th-century thought traced in 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 Ragazzo di Roma, Pirandello’s Il Postumo di Piatto, and Calvino’s The Cosmicomics. 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 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. Readings include works by northern European and African authors about Italy, and Italian authors about Africa and southern Italy. P/NP or letter grading.

M156. Women, Gender, and Sexuality in Italian Culture. (4) Same as Gender Studies M158. 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 Italian society through 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 juniors and seniors. Taught 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 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. Course may be repeated once for credit. Individual contract required. Letter grading.

198HC. Honors Contracts. (1) Tutorial, three hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Supervised by in-structor and provides periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

198. Honors Research in Italian. (4) Tutorial, one hour. Limited to juniors/seniors. Development and completion of significant research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199A. Directed Research in Italian. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP or letter grading.

199B. Directed Capstone Research in Italian and Italian and Special Fields. (4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Submission of paper or project required. May be repeated for credit. Individual contract required. Letter grading.


210. Studies in Early Italian Literature. (4) Lecture, three hours. Topics include origins of Italian language and study of early texts, Scuola Siciliana and early poetry of Central and Northern Italy, and Dolce Stil Novo. S/U or letter grading.

214A-214F. Studies in Medieval Literature. (4 each) Lecture, three hours. S/U or letter grading. 214A. La Divina Commedia. 214B. Dante’s Other Works. 214C. Petrarca’s Canzoniere. 214D. Boccaccio’s Decameron. 214E. Boccaccio’s Other Works. 214F. Variable Topics. Variable-content seminar on themes and issues of medieval literature, with coverage of authors such as St. Francis of Assisi or Jacopone da Todi.


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. Variable Topics. Variable-content seminar on themes and issues of Renaissance literature, with coverage of authors such as Vasari, Leonardo, or Boccaccio.


218A-218D. Studies in 18th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading. 218A. Vico. 218B. Alfieri. 218C. Goldoni. (4) 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 or Ludovico.

219A-219D. Studies in 19th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading. 219A. Stendhal and Romanticism. 219B.WEB. 219C. Marzoni. 219D. Variable Topics. Variable-content seminar on themes and issues of 19th-century literature, with coverage of authors such as Carducci, Tommaseo, or Nievo.


221A-221E. Studies in 20th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading. 221A. Vico. 218B. Alfieri. 218C. Goldoni. (4) 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 D’Annunzio, Verga, Marinniti, and Pirandello. 221E. Modern 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. 222A. 20th-Century Narrative. Analysis of body of work by Salvatore Quasimodo. 222B. 20th-Century Narrative. Analysis of works of contemporary Italian literature famous throughout the world, with emphasis on study of formalistic modes adopted by the neo-avant-garde. 222C. Pirandello and Contemporary Theater. Thorough reading of theatrical texts, accompanied by analysis of how the plays have been realized on stage.
470 / European Languages and Transcultural Studies

by important directors such as Streich, Ronconi, and the playwrights/actors themselves. Emphasis on ritualistic implications of the theatrical performance.

222A-222B. Comparative Romance Historical Grammar. (4–4) Lecture, three hours. Each course may be taken independently for credit. S/U or letter grading. 222A. Principal sound changes from late Latin to main Romance dialects. 222B. Morphology and Syntax. Prime morpho-syntactic changes occurring between late Latin and main Romance dialects.

223. Structures of Modern Italian. (4) Lecture, three hours. Descriptive analysis of basic features of standard Italian from synchronic, typological vantage. Topical emphases may vary annually, but core progression departs from phonology (e.g., syllable types, prosodic patterns, phrasal phonetics), moves through morphological 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 in myriad varieties spoken in Italy. Attention to discrete language types (e.g., Sardinian, Ladino, Friulian, and Franco-Provengal). Consideration of cross-day sociolinguistic pressures. S/U or letter grading.

225. Cultural History of Italian Language. (4) Lecture, three hours. Historical survey of development of Italian language from medieval times to unification of Italy in 1861. Questions dealt with are general acceptance of Florentine speech, and its evolution into national language. S/U or letter grading.

230A-230B. Folk Tradition in Italian Literature. (4–4) Lecture, two hours. S/U or letter grading. M241. Seminar: Political Geography of Italy. (4) (Same as Geography M292.) Seminar, 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.

260A. Alternative Perspectives in Italian Culture: Studies of Folk Tradition in Italian Literature. (4) Lecture, three hours. Open to undergraduate students with consent of instructor. Consious diversity animating Italian society articulated through class, gender, and ethnicity, ethnographic topics to be studied across range of texts, some selected from literary canon, but others purely oral (tales, songs, proverbs, curses and cures, secular and ritual drama). S/U or letter grading.

260B. Women in Italian Culture. (4) Lecture, three hours. Designed for graduate students. Conditions of women within Italian society, with concentration on specific works produced by women and/or representing women’s traditions in either medieval/Renaissance or contemporary time. S/U or letter grading.

260C. Studies in Italian Cinema. (4) Lecture, three hours. Designed for graduate students. Italian cinema compared with other European countries’ and Hollywood’s cinema in terms of development from its origins through Fascist times to noircism, its legacy, different genres, and contemporary scene. S/U or letter grading.

265. Variable Topics in Italian Studies. (4) Lecture, discussion, one hour. Designed for graduate students. Seminar focusing on themes 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. 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-495B-495C. Teaching Italian at College Level. (2 to 4 each) Seminar, to be arranged. S/U or letter grading. 495A. Study methods in preparation for teaching Italian at college level, with emphasis on teaching proficiency-oriented instruction. May not be applied toward MA course requirements. 495B. Continuation of course 495A; study of contemporary issues in Italian language pedagogy. 495C. Effective uses of technology in foreign language classroom. Project-based seminar in which students develop materials in a classroom instruction as well as an electronic teaching portfolio.

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 Reading. (2 to 12) May be repeated twice for credit. S/U grading.

597. Preparation for MA Comprehensive Examination 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

Lower-Division Courses

1. Elementary Swedish. (4) Discussion, four hours. P/NP or letter grading.


10. Introduction to Scandinavian Literatures and Cultures. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or English as a Second Language 3H. Not open for credit to students with credit for course 50. Designed for students in general arts and science who wish to prepare for more advanced and specialized studies in Scandinavian literature and culture. Selected works from literatures of Denmark, Norway, Sweden, Iceland, and Finland, ranging from myth, saga, and folklore through modern novel, poem, play, short story, and film, read in English and critically discussed. Satisfies Writing II requirement. Letter grading.

15. Introduction to Nordic Cinema. (4) Lecture, three hours. Not open to students with credit for course 60W. Broad introductory overview of cinematic traditions of Nordic countries. Survey of wide range of films to become familiar with several significant threads running through history of Nordic film, while simultaneously building necessary tools with which to write effectively about film narrative. Offers historical and theoretical framework for understanding Nordic cinema by reading several relevant texts touching on issues such as globalization, immigration, Dogme 95, and feminist film theory. P/NP or letter grading.

16. Introduction to Nordic Cinema. (4) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or English as a Second Language 3H. Not open for credit to students with credit for course 50. Designed for students in general arts and science who wish to prepare for more advanced and specialized studies in Scandinavian literature and culture. Selected works from literatures of Denmark, Norway, Sweden, Iceland, and Finland, ranging from myth, saga, and folklore through modern novel, poem, play, short story, and film, read in English and critically discussed. Satisfies Writing II requirement. 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 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 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) Supervised research or other scholarly work, three hours per week per unit. Entry-level research for lower-divi-
143A. 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 their careers, they could be successfully translated into many languages, others followed. Scandinavian authors, while following traditional rules of crime fiction, also analyze and often criticize values and weaknesses of societies. Reading of these works as representations of critical social and intellectual problems not only in Scandinavia, but in Europe and world at large. P/NP or letter grading.


141A. 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.

141B. Knut Hamsun. (4) Seminar, three hours. Readings and discussion of selected works by Knut Hamsun of 19th-century Scandinavian writers who explored theme of nature as modern idyll. May be concurrently scheduled with course C245B. P/NP or letter grading.

141A. August Strindberg. (4) Seminar, three hours. August Strindberg's portrayal of marital conflict reflected and shaped literary representation of so-called battle of sexes. His work, as well as his literary transformations, placed into Scandinavian, European, and feminist context. May be concurrently scheduled with course C246A. P/NP or letter grading.

147A. Hans Christian Andersen. (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 of his times. Analysis of his works in terms of their style, structure, and meaning. P/NP or letter grading.

147B. Søren Kierkegaard. (4) Seminar, three hours. Readings and discussion of selected works by Søren Kierkegaard and other existentialists. May be concurrently scheduled with course C247B. P/NP or letter grading.

147C. Karen Blixen. (4) Lecture, three hours. Investigation of life, work, writings, and legacy of Danish author Karen Blixen, also known in the English-speaking world as Isak Dinesen. Focus on literary and philosophical parameters of work. Discussion of this work, often preserved in two collections traditionally called Poetic (or Elder) Edda and Prose (or Younger) Edda. P/NP or letter grading.

141T. 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. Letter grading.

138. Vikings. (5) Lecture, three hours; discussion, one hour. History of Late Iron Age, Viking Age society and archaeology of Viking Age society. Readings draw on medieval sagas as well as secondary material, focus on impact of Vikings on northern Europe, and consider ways in which European and Scandinavian societies evolved in response to Viking incursions. P/NP or letter grading.

141A. Theory of Scandinavian Novel. (4) Seminar, three hours. Analysis of predominant 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 novels. May be concurrently scheduled with course C241A. P/NP or letter grading.

141C. 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, Sigbjørn 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.

142A. Introduction to Nordic Theater and Drama. (4) Lecture, 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, Sigbjørn 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.

142B. Introduction to Nordic Theater and Drama. (4) Lecture, 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, Sigbjørn 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.

142C. Introduction to Nordic Theater and Drama. (4) Lecture, 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, Sigbjørn 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.

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 centered approach to development of Danish cinema rather than focus on films of particular directors or topics. Theoretical readings from important critics, including Kraeauer, Bazin, Metz, and Chatman, along with several key directors of film are used as 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 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 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 Bille August, Lasse Hallström, Vilgot Sjöman, Jan Troell, Lukas Moodysson, and Josef Fares. Development of Scandinavian high art cinema and popular genres such as rural romanticism, melodrama, sex, crime, horror, noir, romantic comedies, and documentaries. Concurrently scheduled with course C263C. P/NP or letter grading.

C165B. Vikings on Film. (4) Seminar, three hours. Exploration of representations of Vikings in medium of film, considering Viking films within their historic and cultural contexts. How does representation of Vikings on film correspond to historical reality of Vikings? What have Vikings come to signify in modern era and why? Do we see development of how Vikings over time that is reflected in films from different periods? How do representations of Vikings in films produced in Scandinavian countries differ from representations of Vikings 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 critical thinking and close textual analysis skills. 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 through various periods, spanning mid-1940s and late 1970s. Contextualization of work of this most personal of filmmakers within multiple frameworks of postwar Swedish film industry, international art cinema, transnational European cinema, 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. Exploration of Ingmar Bergman's development 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 postwar Swedish film industry, international art cinema, transnational European cinema, 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.
Lecture, wood and Los Angeles, 1924–1950. (4)

C171. Introduction to Scandinavian Folklore. (4) Seminar, three hours. Introduction to fairy tales and legends of Scandinavian tradition as well as to interpretive methodologies that strive to answer questions about how and why human condition is interpreted through cultural, historical, and political expression in given pieces of popular culture. Readings in English translation. P/NP or letter grading.

172A. Nordic Folk and Fairy Tales. (4) Seminar, three hours. Exploration of Nordic version of classic fairy-tale types such as Cindereella, Sleeping Beauty, and Gretel, and King Lindorm in historic and cultural contexts. Reading of important works of Nordic and international folklore scholarship, representing historical, geographic, structuralist, psychological, feminist, disability-theory, and queer-theory approaches. Development of critical thinking and close textual analysis skills, and understanding and appreciation of genre and cultural diversity. Readings in English translation. P/NP or letter grading.

173A. Popular Culture in Scandinavia. (4) Seminar, three hours. Examination of popular culture in Scandinavian through study of contemporary Scandinavian literature, film, and art. Investigation of how issues such as globalization, immigration, and nationalism are portrayed in popular culture in Denmark, Norway, Sweden, Finland, and Iceland. Discussion of 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 pieces of popular culture. Readings in English translation. 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 to move to Nordic countries, followed in subsequent decades by immigrants and refugees from Vietnam, India, Iran, Iraq, Afghanistan, Cambodia, and South Africa. Cultural diversity—previously marked by relative high degree of cultural homogeneity—is characterized by broad cultural diversity. Examination of emergence of new voices in Nordic cultural landscape in wide range of cultural expression—literature, film, and visual and performing arts. Exploration of emergence of new forms of Nordic languages, such as well-documented phenomenon of Rinkney Swedish. Concurrency scheduled with course C271. P/NP or letter grading.

174B. Queer Scandinavia. (4) Seminar, three hours. Queer themes in Scandinavian literature, mainly from 19th and 20th centuries. Scandinavian countries had more progressive view on homosexuality than most other countries, and Scandinavian writers portrayed homosexuality in explicit and radical ways as early as 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 Western world over time. 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 material. May be repeated for credit (as determined by undergraduate advisor) with topic change. 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 advisor. May be concurrently scheduled with course C265. 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 affiliated course. Additional work in Nordic 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.


C237. Old Norse Literature and Society. (4) Seminar, three hours. Critical issues in understanding of Old 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.

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 Icelandic sagas. Consideration of history and society that produced these narratives and critical reading of course C133A. Graduate students do additional readings and write more extensive research papers. Letter grading.

C238. Advanced Old Norse Prose. (4) Lecture, three hours. Requisite: course 123E. 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.

C241A. Theory of Scandinavian Novel. (4) Seminar, three hours. Exploration of topics in Scandinavian novel such as Dragon Slayer, Cinderella, Hansel and Gretel, and King Lindorm in historic and cultural contexts. Reading of important works of Nordic and international folklore scholarship, representing historical, geographic, structuralist, psychological, feminist, disability-theory, and queer-theory approaches. Development of critical thinking and close textual analysis skills, and understanding and appreciation of genre and cultural diversity. Readings in English translation. P/NP or letter grading.

C237. Old Norse Literature and Society. (4) Seminar, three hours. Critical issues in understanding of Old 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.

C245A. Henrik Ibsen. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Readings and discussion of selected plays by Henrik Ibsen. May be concurrently scheduled with course C145A. Graduate students may meet for group one additional hour each week to 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 nature as modern idyll. May be concurrently scheduled with course C145B. Graduate students may meet for group one additional hour each week to write research papers of greater length and depth. S/U or letter grading.

C246A. August Strindberg. (4) Seminar, three hours. Preparation: advanced knowledge of modern Scandinavian language. Readings and discussion of selected works by August Strindberg and other existentialist writers. May be concurrently scheduled with course C145B. 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 film directors or topics. Theoretical readings from important critics, including Kracauer, Bazin, Metz, and 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 theorists. 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, Ingmar Bergman, as well as other key Swedish filmmakers such as Gustaf Molander, Alf Sjöberg, Mårten Melder, Vilgot 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 cinema and popular genres such as war films, horror, garnet, and visual and performing arts. Exploration of emergence of new forms of Nordic languages, such as well-documented phenomenon of Pinkeye 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 aspects of Scandinavian society based on contemporary literature as well as historical and/or sociological material. May be repeated for credit (as determined by graduate advisor) 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 Apprenticeship Practicum. (1 to 4) Seminar, three hours. Preparation for advanced placement in secondary or university setting. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 6) Tutorial, to be arranged with faculty member who directs the study or research. Limited to graduate Scandinavian students. Twelve units may be applied toward total course requirement, but only 4 units may be applied toward minimum graduate course requirement. May be repeated twice, S/U or letter grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Exam. (4 to 12) Tutorial, to be arranged with faculty member who directs the study or research. May be repeated once. May not be applied toward MA minimum course requirements. S/U grading.

599. Research for and Preparation of PhD Dissertation. (4), Tutorial, to be arranged with faculty member who directs the study or research. May be repeated. S/U 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 Ashkenazi Jews, adapted to forces of modernity (urbanization, immigration, radical 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.

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 by 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 studying in preparation 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

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 in English Translation. (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 and Yiddish culture, with focus on classic films and DVDs, as well as 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 annihiliated Yiddish civilization of 20th century. These films represent most accessible way available to hear Yiddish spoken in fluent, natural manner. P/NP or letter grading.

131A. 20th-Century Yiddish Prose and Drama. (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.

131B. Modern Yiddish Prose and Drama. (4) Lecture, three hours. Requisite: course 131A. Readings in modern Yiddish poetry, 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 juniors/seniors. Individual intensive study or investigation of topics in Yiddish, 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.

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.

EUROPEAN STUDIES

See International and Area Studies

FAMILY MEDICINE

David Geffen School of Medicine

50-071 Center for Health Sciences
Box 951683
Los Angeles, CA 90095-1683

Family Medicine
310-825-8234

Patrick T. Dowling, MD, MPH, Chair
Michelle Anne Bholat, MD, MPH, Vice Chair, Clinical Affairs
Martin A. Quan, MD, MPH, Vice Chair, Academic Affairs
Michael A. Rodríguez, MD, MPH, Vice Chair, Global Health
Steven J. Shoptaw, MD, Vice Chair, Research
Denise K.C. Sur, MD, Chair, Education and Director, UCLA
David Araujo, MD, Director, Ventura County
Pamela Davis, MD, Director, Northridge Hospital
Lynne M. Diamond, MD, Director, Pomona Valley
Kathleen Dor, MD, Director, Kaiser-Woodland Hills
Theresa Nevarez, MD, MBA, Director, Harbor-UCLA
Carol A. Stewart, MD, Director, Clinica Sierra Vista
John K. Su, MD, Director, Kaiser-Sunset

Overview

The Department of Family Medicine provides all students with a basic introduction to family-centered care in both the inpatient and ambulatory settings. During the basic clerkship, students develop an appreciation of the breadth and scope of family medicine, a basic knowledge in the broad content areas of family medicine, and fundamental clinical skills appropriate to family medicine, including the coordination and management of patients with multiple chronic diseases. The overall goal is to provide students with the opportunity to gain an understanding and appreciation of the central role of family physicians in the healthcare system, and to offer advanced clinical training for those students interested in pursuing careers in family medicine. Further, the basic curriculum includes an overview of healthcare issues facing underserved and immigrant populations in urban America.

Family medicine faculty members are in leadership roles in the doctoring curriculum and in the Primary Care College. All first-year students are assigned to work with a family medicine preceptor once a month on a longitudinal basis for the entire year as part of the doctoring program. In the third and fourth (clinical) years, required and elective opportunities exist. All students take a required four-week clerkship in the third year, which is offered at over 10 teaching sites.

The department offers paid six-week electives known as Summer Research Fellowships after the first year of medical school. This program teaches students how to collect data and submit applications for federal designation as underserved areas. It includes journal article reviews on healthcare reform and disparities, as well as the geographic maldistribution of physicians and the shortage of primary care physicians in South Los Angeles. Students can also participate in a clinical experience. At the end of the project the students present their work on a poster, joining approximately 80 classmates doing other summer projects support by the dean’s office.

For more details on the Department of Family Medicine, see the department website.

Family Medicine faculty information is available from the department.

Family 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 Family Medicine. (2 to 6) 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.

FILM, TELEVISION, AND DIGITAL MEDIA

School of Theater, Film, and Television

103 East Melnitz Building
Box 951622
Los Angeles, CA 90095-1622

Film, Television, and Digital Media
310-206-3516

Department e-mail

Steven F. Anderson, MFA, PhD, Interim Chair

Faculty Roster

Professors

Steven F. Anderson, MFA, PhD
Michael S. Berry, PhD
Barbara Boyle, JD
Jeffrey A. Burke, in Residence
George J. Huang, MFA
Erkki I. Huhtamo, PhD
Liza Johnson, MFA
Gina Kim, MFA
Deborah Nadooolman Landis, PhD (David C. Copley Professor of Costume Design)
Purnima Manekkar, PhD
Denise R. Mann, PhD
William McDonald, MFA
Kathleen A. McHugh, PhD
Sean A. Metzger, PhD
Phyllis A. Nagy, BFA
Chon A. Noriega, PhD
Kris Ravetto-Bliaglioli, PhD
Nancy Richardson, MFA
Teri E. Schwartz, MA
Charles E. Sheetz, MFA
Becky J. Smith, MA
Amy Villarejo, PhD

Professors Emeriti

Jerzy Antczak, MA
Janet L. Bergstrom, PhD
Nicholas K. Browne, EdD
John T. Caldwell, PhD
Gyula Gazdag, MFA
Marina Goldovskaya, PhD
A.P. Gonzalez, MA
Lewis R. Hunter, MA
Stephen D. Mamber, PhD
Vivian Sobchack, PhD
Howard Suber, PhD

Associate Professors

Shelleen M. Greene, PhD
Arne O. Lunde, PhD
Jerzy Antczak, MA
Kristy M. Guevara-Flanagan, MFA
Shelleen M. Greene, PhD
Kristy M. Guevara-Flanagan, MFA
Vivian Sobchack, PhD

Assistant Professors

Rory M. Kelly, MFA
Veronica A. Paredes, PhD
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 seeks 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

### 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.

### 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.

### 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.

### The Major

**Required:** Film and Television 101A, 106B or 106C, 134, 150, 154, 155, 156; one cinema and media studies elective from 107, 108, 109, M111, 112, 113, 114, M117, or 122N; one capstone departmentally sponsored internship (course 195) taken concurrently with course 194; 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:


### 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 BA, 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](http://www.film.ucla.edu). 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, M150, 51, or 84A.


### Policies

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.

### Graduate Majors

**Film and Television MA, CPhil, PhD**

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

### Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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) Laboratory, 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. (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, 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. (8) Lecture/screenings, eight 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. (Lecture/screenings, five 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 Hollywood films that comment on radio and television, consideration of television programs in terms of sociocultural issues (consumerism, lifestyle, gender, race, national identity) and industrial practice (programming, policy, regulation, business). 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.

33. Introductory Screenwriting. (4 Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course C132/C430. Structural analysis of feature films and analysis of professional screenwriters’ vocabulary for constructing, deconstructing, and reconstructing their own work. Screenings of films and selected film sequences in class and by assignment. P/NP or letter grading.

37. Writing for Television: Big Ideas for Small Screen. (2 to 6 Seminar, nine hours. Offered in summer only. Intensive introduction to television pilot form, covering style and content, as well as principles behind network needs and how pilots are chosen across broadcast, cable, and digital platforms. Students write series outline and teaser of original pilot episode. P/NP or letter grading.

M50. Introduction to Visual Culture. (5 Same as English M50.) Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Study of how visual media, including film, television, advertising, and print, functions in contemporary aesthetic, political, and knowledge. P/NP or letter grading.

51. Digital Media Studies. (Lecture, three hours; laboratory, one hour. Introduction to history, theory, and authoring skills of digital media, art, and culture. P/NP or Letter grading.

72. Production Practice in Film, Television, and Digital Media. (2 to 4 Lecture, three hours; laboratory, three hours. Exploration of research, analysis, and conceptualization of dramatic narrative and laboratory experience in one or more various aspects of contemporary production and postproduction practices for entertainment media, including film, television, video, and digital media. May be repeated for maximum of 8 units. Letter grading.

75. Lighting for Film and Television. (Lecture, 10 hours. Offered as one-week intensive course. Introduction to concepts and practice of lighting for film through discussion and intensive hands-on, laboratory experience for directors of photography, camera operators, gaffers, key grips, assistant camera, and grips. Crew rotation changes per camera setup, Review of dailies. Offered in summer only. Letter grading.

84A. Overview of Contemporary Film Industry. (4 Lecture, three hours; discussion, one hour. Examination of evolving economic structures and business practices in contemporary Hollywood film industry, with emphasis on operations of studios and independent distribution companies, their development, marketing, and distribution systems, and their relationship to independent producers, talent, and agencies. Letter grading.
101A. Junior Symposium. (1) Laboratory, three hours. Course 101A is enforced requisite to 101B, which is enforced requisite to 101C. Limited to Film and Television majors. Structured forum in which juniors meet on regular basis to discuss curricular issues, meet with faculty members, and have exposure to array of guest speakers from within film industry. Letter grading.

102A-102B-102C. Senior Symposium. (1-1-1) Laboratory, three hours. Enforced requisite: course 101A. Course 102A is enforced requisite to 102B, which is enforced requisite to 102C. Limited to Film and Television majors. Structured forum in which seniors meet on regular basis to discuss curricular issues, meet with faculty members, and have exposure to array of guest speakers from within film industry. Letter grading.

105. History of European Motion Picture. (6) Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of European motion picture history as developing art form and as medium of mass communication. Letter grading.

106C. History of African, Asian, and Latin American Film. (6) Lecture/screenings, eight hours; discussion, one hour. Discussion of selected historical periods. Letter grading.

107. Experimental Film. (6) Lecture/screenings, eight hours; discussion, one hour. Study and analysis of unconventional developments in motion pictures. P/NP or letter grading.

108. History of Documentary Film. (6) Lecture/screenings, eight hours; discussion, one hour. Philosophy of documentary motion pictures, development of critical standards and examination of techniques of teaching and persuasion used in selected documentary, educational, and propaganda films. Letter grading.

109. Advanced Topics in Documentary: New Documentary Forms. (4) Lecture, three hours; discussion, one hour; screenings, three hours. Examination of today’s documentary modes of representation and genres focusing on rise and diversification of nonfiction modes since new millennium. From short form to series based, virtual reality to interactive, crowd sourced to animated, study of new documentary forms and platforms as situated within complex media environment. Exploration of theoretical models through which documentaries can be understood, questioned, and critically approached. Letter grading.

111. Women and Film (also Women Studies M111). Lecture, eight hours; discussion, one hour. Historical issues and critical approaches to women and cinema that may include authorship, stardom, genre, and images of women in Holywood cinema, alternative cinema, and independent cinema from silent era to present. Letter grading.

112. Film and Social Change. (6) Lecture/screenings, eight hours; discussion, one hour. Development of documentary and dramatic films in relation to and as force in social development. Letter grading.

113. Film Authors. (5) Lecture/screenings, five 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, five hours; discussion, one hour. Study of specific film genre (e.g., Westerns, gang films, silent epic, comedy, social drama). May be repeated for credit with topic change. P/NP or letter grading.

117. Chicano in Film/Video. (5) (Same as Chicano and Chicana/o Studies M114.) Lecture/screenings, five hours; discussion, one hour. Goal is to gain nuanced understanding of Chicano cinema as political, socioeconomic, cultural, and artistic practice. Examination of Mexican Americans and Chicanos in four Hollywood genres—silent greaser films, social problem films, Westerns, and gang films—that are major genres that account for films about Chicano experience. Limited to 20 students. Designed as adjunct to lower-division courses and to discuss curricular issues, meet with faculty members, and have exposure to array of guest speakers from within film industry. Letter grading.


122D. Film Editing: Overview of History, Technique, and Practice. (4) Practicum and analysis 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. In-depth study of principles of digital cinematography. How tools and techniques affect visual storytelling process. Topics include formats, frame rates, lenses, special effects, internal menu picture manipulation, lighting, composition, coverage, high definition, digital exhibition, filtration, multiple-camera shooting. P/NP or letter grading.

122F. Writing for Animation. (5) Lecture, three hours. Introduction to craft and business of writing animation for television. Overview of history of animation produced specifically for this medium, along with its film antecedents. Film medium 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 anima- tion and society. Letter grading.

122M. Film and Television Directing. (4) Lecture, three hours. Through discussions, screenings, demonstrations, and guests, exploration of script, previsualization, direction, and scripts, direction and writing, focusing on relationship to television. Directing and writing for camera. P/NP or letter grading.

122N. History of Animation in American Film and Television. (5) Lecture, six hours. Survey of animation in America from its precursors origins to recent films of Disney, Pixar and Shitik, etc. Place of animation in pop culture, racial imagery and ethnic stereotypes, growth of art form, and how it reflects American society. P/NP or letter grading.

M124. Sex, Race, and Difference in Transnational Film. (6) (Same as Gender Studies M124.) Lecture, three hours; discussion, one hour. Drawing on feminist media studies, training of students in gender literacy so they acquire necessary skills to carefully interrogate film and television as medium of communication, and understand what role film and television play in the formation of identity. Letter grading.

125. 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.

126. Media and Ethnicity. (4) Lecture, four hours. Utilizing Asian American and Chicano/a studies, exploration of impact and uses of media on contemporary American ethnic communities. Role and techniques of media influence besides community utilization and production. P/NP or letter grading.

127A. 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 writing, direction, production, and performance. Offerings of individual contributions in collaborative effort; examination of different aspects of theatrical and cinematic arts. Individual units include participation of leading members of theater, film, and television professions. May be repeated twice for credit. Concurrently scheduled with course CMG29. P/NP or letter grading.

131. Introduction to Television Writing. (6 or 8) Lecture, three hours. Introduction to television pilot form, covering style and content, as well as principles behind network needs and how pilots are chosen across broadcast, cable, and digital platforms. Students write series outline and first act of original pilot. Offered in summer only. Letter grading.


133B. Intermediate Television Writing One-Hour Drama/Half-Hour Dramedy Series. (6 or 8) Lecture, three hours. Recommended requisite: course 131. Examination of writing for one-hour formats, covering style, content, and structural analysis. Review of principles behind network needs and how pilots are chosen across broadcast, cable and digital platforms. Students write series outline and first draft of original pilot series. Open to works in progress and reviews. Offered summer only. Letter grading.

134. Intermediate Screenwriting Workshop. (4) Seminar, three hours. Focus in film and television writing, P/NP or letter grading.

135A-135B-135C. Advanced Screenwriting Workshops. (6–6–6) Laboratory, three hours. Requisite: course 134. Course 135A is requisite to 135B, which is requisite to 135C. For 135B and 135C: Limited to Film and Television majors and designated for seniors. 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. 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.

C142. Digital Imagery and Visualization. (4) Lecture, three hours; laboratory, three hours. Introductory hands-on investigation 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 images visualizing personal production and presentation for course. Concurrently scheduled with course C242. Letter grading.

C143. 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 C243. Letter grading.

C144. 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, interface design, and interactive audiovisual construction. Students produce interactive multimedia projects. May be repeated once for credit. Concurrently scheduled with course C244. 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 completed films. Emphasis on assembly of creative team and analysis of industrial context, both independent and studio. Screenings viewed outside of class and on reserve at Powell Library. Letter grading.

C147. Production Management: Physical Production for Film and Television. (2) Lecture, three hours; laboratory, one hour. Analysis of procedure, problems, and budgets in preparing feature-length script for film and television production, with emphasis on role of producer and organization of technical units. Concurrently scheduled with course C247. Letter grading.

C148. 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 and to learn and practice independent production. Letter grades. Concurrently scheduled with course C248. Letter grading.

150. Cinematography. (4) Formerly numbered 52.) Lecture, three hours; laboratory, three hours. Requirements: 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 comprehension of principles of motion imaging photography through lectures, discussions, and screenings; development of cinematographic shooting exercises during laboratory period, and acquisition of appreciation of art of cinematography. Language and skills of image construction provided, as well as image analysis and preparation. Letter grades. Concurrently scheduled with course C454C. Letter grading.

151. Introduction to Experimental Filmmaking. (4) Lecture, three hours; laboratory, to be arranged. Limited to Film and Television majors. Techniques of image manipulation, design, and art direction. Production and completion of exercise (no longer than three minutes), using 16mm nonsync sound film. May be repeated twice for credit. Letter grading.

152. Film and Television Sound Recording. (4) Lecture, three hours; laboratory, to be arranged. Limited to Film and Television majors. Introduction to principles and practice of film and television sound recording, including supervised exercises. P/NP or letter grading.

C152C. Digital Audio Postproduction. (4) Lecture, three hours; laboratory, three hours. Enforced requirements: courses 101A, 185. Limited to Film and Television majors. Through discussion, demonstrations, and laboratory assignments, exploration of digital audio tools and techniques for filmmakers. Coverage of many technical, equipment, and software step-by-steps, with emphasis on creative process. Concurrently scheduled with course C452C. Letter grading.

153. Motion Picture Lighting. (4) Lecture, three hours; laboratory, three hours. Enforced requirements: courses 52, 101A, 185. Limited to Film and Television majors. Introduction to principles and tools of lighting used in visual storytelling, with emphasis on cinematography, and screenings. Creative lighting techniques covering topics such as people, environment, spatial relationships, movement, color, special effects, and continuity. Letter grading.

154. Film Editing. (4) Lecture, three hours; laboratory, two hours. Requirements: course 101A. Corequisite: course 150. Limited to Film and Television majors. Introduction to artistic and technical problems of film editing, with practical experience in editing of images and synchronous sound. Letter grading.

C154B. 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 requirements: courses 52, 154, 185. Limited to Film and Television majors in postproduction phase with advanced knowledge of organization of production, editing, and postproduction. Offered in studio and/or 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.

155. Introduction to Digital Media and Tools. (4) Lecture, six hours; laboratory, one hour. Preparation: submission of rough cut of existing project or proposal to edit work of another director. Enforced requirements: courses 52, 154, 185. Limited to Film and Television majors. Introduction to digital media tools and procedures available to today's filmmakers. Students create 10-second film in one of traditional techniques (non-computer), with music and/or sound effects. Offered in summer only. Letter grading.

156. Writing for Animation. (4) Lecture, two hours; discussion, to be arranged. Corequisite: course C454C. Letter grading.

157. Lighting for Film and Television. (4) Lecture, two hours; laboratory, six hours. Requirements: course 52. Limited to Film and Television majors. Lectures, supervised exercises on stage and in exterior, screenings of scenes and discussion and practical training in mastering lighting to create appropriate mood or atmosphere of prerecorded scene recorded on film or through electronic system. May be repeated twice for credit. Concurrently scheduled with course C417. Letter grading.

158. Digital Workflow. (2 to 4) Lecture, three hours; laboratory, two hours. Requirements: courses 52, 185. 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.

163. Directing Cameras. (4) Lecture, three hours. Enforced requirements: course 101A. Limited to Film and Television majors. Investigation of expressive potential of image within and beyond narrative from directorial perspective. Experiments with working methodologies that stimulate visual creativity and positioning image as fundamental element of cinematic expression. Letter grading.


C168. Creative Location Film Production. (8) Lecture, four hours; discussion, four hours; laboratory, to be arranged. Limited to directing or producer’s pro-
183B. 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 faculty mentor. Coursing 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 commercial audiences. Focus on interplay between distributer, exhibitor, and audience and analysis of various conceptual frameworks and industrial strategies within which these relationships are conceived and operate. May be taken independently for credit. Letter grading.

184B. Overview of Contemporary Television Industries. (4) Seminar, three hours. Open to nonmajor and graduate students. May be taken independently for credit. Letter grading.

185. Intermediate Undergraduate Film Production. (6) Laboratory, six hours. Requisites: courses 52, 154, 155, 183. Limited to Film and Television majors. Instructor 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. Requisite: course 186A. Emphasis on operations of networks and cable companies, series development, marketing, and network branding from 1947 to present. Letter grading.

C186B. Advanced Documentary Workshop. (4) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Requisite: 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 C403A. Letter grading.

C186C. Advanced Documentary Workshop. (4) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Requisite: 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 C403C. Letter grading.

188A. Special Courses in Film, Television, and Digital Media. (4) Lecture, three hours; discussion, one hour. Television, film, and digital media for undergraduate students taught on experimental or temporary basis. May be repeated for credit. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: 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.

188B. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: course 188A. 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. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced prerequisite: 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.


195. Corporate Internships in Film, Television, and Digital Media. (6) Formerly numbered 195.) Tutorial, one hour; fieldwork, eight to 10 hours. Enforced prerequisite: course 194. Limited to juniors/seniors. Corporate internship in supervised setting in business related to film, television, and digital media industries. Examination of issues related to internship site through series of reading assignments constructed by faculty sponsor and graduate student coordinator. May be repeated for credit with consent of Center for Community Learning. Individual contract with supervising faculty member required. P/NP or letter grading.

195CE. Corporate Internships in Film, Television, and Digital Media. (Formerly numbered 195.) Tutorial, one hour; fieldwork, eight to 10 hours. Enforced prerequisite: course 194. Limited to juniors/seniors. Corporate internship in supervised setting in business related to film, television, and digital media industries. Examination of issues related to internship site through series of reading assignments constructed by faculty sponsor and graduate student coordinator. May be repeated for credit with consent of Center for Community Learning. Individual contract with supervising faculty member required. P/NP or letter grading.

196. Directed Research or Senior Project in Film, Television, and Digital Media. (2 to 8) Tutorial, three hours. Limited to senior Film and Television majors. Supervised individual research or investigation under guidance of faculty member. Final project required. May be taken for maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

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 and study of research methods, techniques, and resources in film and television research; including development of computer skills for preparation of bibliographies, online database searching and retrieval and, when appropriate, use of computer/video/disk technology for research. Letter grading.

201A. Seminar: Media Industries and Cultures of Production—Foundations. (6) Seminar, three hours; film screenings, three hours. Critical survey of various scholarly traditions and approaches in the study of film industry practices as cultural, social, and industrial phenomena. Excluding development of 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 studies research and transmedia practices, including innovations in marketing, li-
208C. Seminar: Contemporary Film Theory. (6) Seminar, three hours; film screenings, four to six hours. Requisite: course 208B. Designed for graduate students. Study of redefinition of aims and methods of film theory through contemporary writings. S/U or letter grading.

209A. Seminar: Documentary Film. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Nonfictional film and its relation to contemporary culture. S/U or letter grading.

209D. Seminar: Animated Film. (6) Seminar, three hours; film screenings, three hours. Designed for graduate students. Critical study of animated film: its historical, structural, style, use, and relation to contemporary culture. S/U or letter grading.

211A. Seminar: Historiography. (6) Seminar, three hours; film screenings, three hours. Limited to Film and Television MA candidates. Beginning examination of function and methods of writing film and television history as seen in works of key historians in U.S. and Europe. S/U or letter grading.

211B. Seminar: Historiography. (6) Seminar, three hours; film screenings, three hours. Limited to Film and Television PhD candidates. Examination of function and methods of writing film and television history as exemplified by key works in this tradition, with attention to central issues of historical thought on media. S/U or letter grading.

212. Cinematic and Mediated Studies Graduate Colloquium. (2) Lecture, two hours. Exchange with scholars inside and outside department through lectures and academic paper presentation and offers students practice in presenting papers for professional conferences, CV writing seminars, job market/interview preparation seminars, and discussion of current topics and trajectory of area of cinema and media studies. May be repeated for maximum of 14 units. S/U grading.

213. Capstone Seminar. (6) Seminar, three hours. Limited to Film and Television MA candidates. Capstone course for cinema and media studies master’s program. Students write, revise, and present comprehensive essay on preapproved topic derived from their MA coursework. Letter grading.

215. Seminar: Theory and Method. (6) Seminar, three hours. Limited to Film and Television PhD candidates. Examination of major modes of theoretical reflection that bear on film and television through study of central texts of such traditions as phenomenology, deconstruction, semiology, psychoanalysis, sociology, etc. S/U or letter grading.

215B. Seminar: Text and Context in Intermedia Age. (6) Seminar/screenings, five hours. Theoretical and methodological approaches to media texts and contexts. Explores central themes in the theory of aesthetic, ideological, and cultural meanings in literary, theatrical, film, or television texts or group of texts to latter approaches from within material, social, and industrial contexts from which media texts emerge. Letter grading.

216. Film, Costume, and Character. (6) Seminar, three hours; film screenings, three hours. Exploration of integration of costume design into filmmaking process and illumination of work required to bring characters from written page to life. Discussion of practice of costume design. Analysis of films from various genres. Letter grading.

217A. Seminar: American Television History. (6) Seminar, five hours; screenings, four hours. Critical survey of U.S. television industry from its inception to present. Examination of programming and changes within industry by considering range of technological, economic, aesthetic, social, and cultural dimensions. Letter grading.

217B. Seminar: Selected Topics in Television History. (6) Seminar, three hours; screenings, three hours. Advanced seminar with focus on specific topic or area (historical period, industry, programming, genre, or social formation) in domestic or international television. Letter grading.

218. Seminar: Culture, Media, and Society. (6) Seminar, three hours; screenings/discussion, four hours. Emphasis on discourse of other(s). Thematization of other is concerned with theories of difference rather than similarity or identity—how other cultures enter into interaction and their representation of politics through metaphors of (1) difference without opposition, (2) heterogeneity without hierarchy, and/or (3) otherness without ethnocentrism. Examination of how concepts of race, gender, and Third World peoples have been rendered others; place of cinematic apparatus in this process and how academia of others is positioned vis-à-vis mainstream critical discourses. May be repeated once for credit. S/U or letter grading.

219. Seminar: Film and Society. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of ways film affects and is affected by social behavior, belief, and value systems; contextual in relation to film industry. 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. Intensive examination of works of outstanding creators of films. 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. Study 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 analytical 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; laboratory, three hours. Survey of computer applications relevant to film study, principally computer-aided digital 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 nature of medium, rather than looking at games as gaming. May be repeated twice for credit. S/U or letter grading.

CM229. Contemporary Topics in Theater, Film, and Television. (Same as Theater 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.

2242. Digital Imagery and Visualization. (4) Lecture, three hours; laboratory, three hours. Introductory hands-on investigation 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 visualizations. May be repeated once for credit. Concurrently scheduled with course C142. Letter grading.

2243. Creating 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.

2244. Interactive Multimedia Authoring. (4) Lecture, three hours; laboratory, three hours. Introduction to expressive and aesthetic potential of interactive multimedia and its theoretical issues. Exploration of methodologies 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.


2246. Seminar: Issues in Electronic Culture. (6) Seminar, three hours; laboratory, three hours. Critical studies seminar with major hands-on laboratory component that explores impact of new digital technologies on contemporary culture and aesthetics. Students do laboratory projects using visualization, image manipulation tools, and Internet authoring tools. Letter grading.

2247. Production Management: Physical Production for Creatives. (4) Lecture, three hours; laboratory, one hour. Analysis of procedure, problems, and budgets 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 C147. Letter grading.

2248. Advanced Digital Media Workgroup. (4) Laboratory, two hours; discussion, four hours. Designed for graduate students with previous hands-on 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.

2270. Seminar: Film Criticism. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of aesthetic and ideological impulses of film and television. S/U or letter grading.

2271. Seminar: Television Criticism. (6) Seminar, four hours; laboratory, four hours. Introduction to television and its relationship to wider cultural and ideological issues. 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.

2272. 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 of practice of analysis and criticism, with emphasis on contemporary film and television. S/U or letter grading.

2274. Seminar: Research Design. (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.

2276. Seminar: Non-Western Films. (6) Seminar, three hours (additional hours as required); film screenings, three 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 tenets and analysis of television scripted shows and contemporary industry production and business practices. Development of original show concepts and pitch for review and feedback by class, instructor, and guests. Three hours not requisite to 282B.

282B. TV Development 2. (4) Seminar, three hours. Advanced analysis of television scripted shows and contemporary industry production and business practices. Continued development of original show concepts and pitch for review and feedback by class, instructor, and guests. Letter grading.


283B. Writing Half-Hour Comedy Pilot and Series Bible. (8) Seminar, three hours. Requisite: course 283A. Examination of basics of half-hour pilot format, style, and content, and learning of principles behind network needs and choices in choosing 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 283A. Practical knowledge about skills necessary to be writer/producer for a half-hour comedy show. Focus on community building, collaboration, and leadership skills needed to successfully function in writers' room, as well as breaking stories, writing, and rewriting. Letter grading.

284A. Writing One-Hour Drama Speculative Episode. (4) Seminar, three hours. Basic tenets 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. (8) Seminar, three hours. Requisite: course 283A. Examination of basics of drama pilot format, style, and content, and learning of principles behind network needs and choices in choosing 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. Running Television Drama Room. (4) Seminar, three hours. Enforced requisite: course 284A. Practical knowledge about skills necessary to be writer/producer for a one-hour drama show. Focus on community building, collaboration, and leadership skills needed to successfully function in writers' room, as well as breaking stories, writing, and rewriting. Letter grading.

287A. Introduction to Art and Business of Producing I. (4) Seminar, three hours. Introduction for first-year producers program students to producer's role in navigating unique dynamic between art and commerce in entertainment industry. Overview 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. Requisite: course 287A. Courses 287A and 287B present continuity 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 choices for review and feedback.

287C. Introduction to Art and Business of Producing III. (4) Seminar, three hours. Requisites: courses 287A and 287B. Presents film business principles taught in courses 287A and 287B 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. Letter grading.


291B. Feature Film Marketing. (4) Lecture, three hours. Course 291A is not requisite to 291B. Examination of numerous groups that are responsible for specific marketing components and make up marketing department. Topics include film marketing department, 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 that make up entertainment industry, with emphasis on film distribution and exhibition. Three lectures, readings, filmmakers, 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, executive producers, writers' rooms, and industry leaders in script-killing, packaging agents, and studio responsible for developing and creating programming. S/U or letter grading.


292C. Running Shows: Producing for Broadcast and Cable. (4) Lecture, three hours. Course 292B is not requisite to 292C. Exploration of role of writers-producers or showrunners in creating television shows. Designed to train writers who typically enter field as staff writers and to develop concrete tools of producers. Training of next generation of nonwriting network and studio television executives whose job is to assist writers/producers in collaborative and creative process of creating, developing, producing, and scheduling television programming. S/U or letter grading.

294A. Contracts and Negotiation. (4) Lecture, three hours. Survey of range of contracts involved in studio productions, including literary submision and option agreements, artist employment, director employment, writer collaboration agreements, coproduction agreements, and other legal elements involved in purchasing scripts for producing entities, and what future may hold for truly independent film-makers. Letter grading.

294B. International Financing and Distribution. (4) Lecture, three hours. Course 294A is not requisite to 294B. Legal-based course dealing with international financing and distribution of feature films. Topics include fundamentals of film financing, international distribution, European coproductions, role of foreign sales agents and of bankers and completion bond companies. S/U or letter grading.

295A. Art of Presentation. (4) Lecture, three hours. Cultivation of skills necessary 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-studies, guest speakers (drafter of screenplay, director, 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 teach students to develop networking strategies among agencies, including motion picture literary, talent, story, packaging, and television, and examination of various interactions among each. Exercises encourage pro-
429B. Who Represents Me? (4) Lecture, three hours. Course 296A is not prerequisite to 296B. In-depth analysis of different forms of representation offered by agents, managers, unions, and lawyers and detail of legal rights and responsibilities of each. Exercises require student 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 for review and feedback by class, instructor, and guests. S/U or letter grading.


297C. Digital Media Producing 3. (4) Seminar, three hours. Overview of 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 8) Lecture/discussion/laboratory, 12 hours; fieldwork, to be arranged. Requisites: courses 405, 410A, 410B, 410C, 433. Limited to 10 students per section. Students conceptualize, research, write, shoot, and edit projects to completion. May be repeated once for credit. Concurrently scheduled with courses C168A-C168B-C168C. S/U or letter grading.

298B. Special Studies in Film and Television. (8–8) Lecture, 12 hours. Directed study. May be repeated for credit. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personal 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 once for credit. S/U or letter 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, photochemistry, elements of electronic processes, and display of tone and motion. May be repeated once for credit. S/U grading.

400B. Introduction to Cinematography II. (4) Lecture, three hours; laboratory, three hours. Continuation of study of cinematography with emphasis on lighting. Instructor presents together with the students’ cinematographer to prepare for shooting six-project minutes. Letter grading.

401. 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 strategies usable in creation of moving image art forms. Unifying theory and practice, presentation of approach to creating great films of past that empowers filmmakers to use sound and images to tell original stories in present. Focus on strategic decision making in areas of writing, design, cinematography, editing, sound, and performance to enable filmmakers to uncover their own personal style for telling stories on screen. Letter grading.

402A–402B. Advanced Narrative Directing Workshops. (4 or 5–6) Limited to nine production and television students. Preparation: Production of 10- to 15-minute fiction film or project. Letter grading. 402A. Laboratory, six or 12 hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410A, 410B, 410C, 433. Students бюджету and produce their projects in end of first term. 402B. Laboratory, 12 hours; fieldwork, to be arranged. Requisite: course 402A. In second term students must complete photography on location and/or in studio. Lecture grading.


C403A-C403B-C403C. Advanced Documentary Workshops. (4 to 6) Lecture/discussion/laboratory, 12 hours; fieldwork, to be arranged. 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 (on location), and edit projects to completion. May be repeated once for credit. Concurrently scheduled with courses C168A-C168B-C168C. S/U or letter grading.

404. Digital Image and Manipulation on Set and Post. (4) Lecture, two hours; laboratory, two hours. Requisite: course 410B. Designed to keep students abreast of ever-changing tools and techniques of cinematography. Exploration of developing concepts and familiarization with emerging technology and equipment. Focus may change to reflect changes in current technology. May be repeated twice for credit. Letter grading.

404A-404B. Advanced Abstract/Experimental Media Workshops. (4-6) 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. (4) Lecture, two hours; laboratory, two hours. Requisite: course 410B. Students achieve greater understanding and command of tools and techniques of color correction and matte photography (both on set and in post production) through lectures, discussions, workshops, and screenings. Increases student’s appreciation and skill set in art of digital image manipulation in cinematography. May be repeated once for credit. Letter grading.

407. Video Documentary Workshop. (8) Laboratory, 12 hours. Limited to graduate film and television students. Exploration of documentary video, including scripting, research, crew management, and postproduction of short documentary project using single-camera field production techniques. S/U or letter grading.

408A-408B. Avid Editing. (4–4) Studio, four hours; laboratory, to be arranged. Individual instruction in Avid nonlinear editing system. Letter grading. 408A. Avid Editing 1; 408B. Avid Editing 2.

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/camera/actor techniques, and five weeks to offer basic strategies to elicit good performances from actors. Emphasis on preproduction scenes and 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 context of preproduction, production, and postproduction, providing forum for synthesis of knowledge gained in various first-year technical courses and crafting 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. Designed to give hands-on experience in all aspects of film production (tools and practicum of medium) as each student 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 students practical experience with all aspects of film production (tools and practicum of medium) as each student writes/directs/edits six-minute film. May be repeated for credit. Letter grading.

410D. Production Sound. (2) Seminar, three hours. Requisites: courses 405, 409. Required of and limited to first-year MFA production program students. Technical and aesthetic aspects of postproduction sound recording, mixing, and re-recording for film and television. Application of principles of sound design to student films while using UCLA’s John Candy Room and Scoring Stage for Automatic Dialogue Replacement (ADR), Foley, and mixing. Use of Pro Tools LE for recording, editing, and mixing, and selection and use of microphone and mixing consoles, and incorporation of Final Cut Pro soundtracks into mix environment. Students record ADR and Foley and present mix of edited dialogue/ADR, Foley, sfx, and music tracks by end of term. Letter grading.

410E. Production. (12) Lecture, three hours; fieldwork, 24 to 40 hours. Requisites: courses 401, 409, 410A through 410D. Limited to first-year MFA production/directing students. Designed to give hands-on experience in film production. Students prepare and direct six-minute films and serve in production assistant positions for film and television students.

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. Six-week course with hands-on exercises on stage or in exterior, screenings of scenes, and discussions aimed at learning to master lighting to create appropriate mood or atmosphere of premeditated scene recorded on film or through electronic system. May be repeated twice for credit. Concurrently scheduled with course C157. Letter grading.

C418. Cinematography and Directing. (4) Lecture, two hours; laboratory, six hours. Requisite: course 410B. Limited to graduate film and television students. Supervised filmmaking of short dramatic projects on sound stage and at exterior locations that explore complexity of process, emphasizing balance and collaboration essential to both directing and photography in its varied technical, production, and creative aspects. Letter grading.

C419. 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. Concurrently scheduled with course C120. Letter grading.


C423B. Advanced Direction of Actors for Film and Television. (4) Studio laboratory, six hours. Requisite: course 423A. Limited to graduate film and television students. Directed advanced directing actors before camera. Emphasis on developing tech-
niques to immediately enhance communication between director and actor on set in order to maintain continuity from shot to shot. S/U or letter grading.

430. Introduction to Film and Television Writing. (6) (Formerly numbered C430.) Lecture, three hours. Introduction to film and television writing. S/U or letter grading.


432. Writing Short Screenplays. (4) Lecture, three hours. Limited to and required of first-year MFA production program students. Conception, development, and writing of six-minute dramatic film script to be produced in courses 410A, 410B, 410C. Letter grading.

433. Writing Short Screenplays. (4) Lecture, three hours. Limited to and required of first-year MFA production program students. Conception, development, and writing of dramatic film script to be produced as advanced or thesis project. Letter grading.


435. Advanced Writing for Short Film and Television Screenplays. (4) Discussion, three hours. Requisite: course 431. Continuation of dramatic film writing for television students. Conception, development, and writing of dramatic film script to be produced as advanced or thesis project. Letter grading.

436. Advanced Storytelling Tools for Screenwriters: Fundamentals and Beyond. (4) Lecture, three hours. Requisite: course C430 or C431. Instruction in identification and application of specialized narrative tools common to screenplays. Students view and analyze well-known films that employ these devices to significant and enduring effect. Students also read screenplays (or portions thereof) of these films to analyze how screenwriters convey each device in written form. Students write original scenes and synopses that demonstrate their practical mastery of these tools as they relate to their own development as screenwriters. S/U or letter grading.

437. Adaptation for Screen. (8) Seminar, three hours. Requisites: courses C430, 431. Students analyze techniques of dramatic adaptation and apply them by writing their own adapted scripts. Students adapt 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 stories. Letter grading.

451. Advanced Design for Film and Television. (4) Laboratory, two hours; seminar, three hours. Limited to graduate film and television students. Advanced study and practice of techniques and methods of design for motion pictures. Art direction for advanced workshop productions. May be repeated for maximum of 12 units. 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 re-recording for film and television. Letter grading.

454C. Digital Audio Postproduction. (4) Lecture, three hours; laboratory, three hours. Limited to Film and Television majors. Through discussion, demonstration, and hands-on experience, students learn to work with digital audio tools and procedures available to today’s filmmakers. Coverage of many technical, equipment, and software step-by-step, with emphasis on creative process. Concurrently scheduled with course C152C. Letter grading.

455. Postproduction Sound Design. (2 to 4) Lecture, three hours. Designed to give film students insight into 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. Students will 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. How to edit dialogue, prep for Automatic Dialogue Replacement and Foley sessions, and supervise final sound mix.

Screening of numerous film clips to provide examples of postproduction choices that demonstrate effective use of sound design. S/U or letter grading.

C454B. Advanced Film Editing. (4) Lecture, three hours; laboratory, one hour. Preparation: submission of rough cut of existing project or proposal to edit work. Study of film and television students in postproduction phase with advanced knowledge of organization and operation of postproduction process. Students may also propose to edit significant segment of course material. Concurrantly scheduled with course C154B. Letter grading.

C454C. Digital Workflow. (2 to 4) Lecture, three hours; laboratory, two hours. Limited to departmental majors. Through discussions, demonstrations, outside speakers, and laboratory assignments, students will learn the 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 for course expansion with, specific scenes, of differences and many similarities in directorial approach to same literary material in theater, film, and television. S/U or letter grading.


465. Narrative Television Workshop. (8) Laboratory, four hours; supervised exercises in television multi-camera direction, with emphasis on creative use of composition and sound, and communication with those in front of and behind camera. Letter grading.

C468. Creative Location Film Production. (8) Lecture, four hours; discussion, four hours; laboratory, to be arranged. Limited to directing or producer’s program students. Problems of location, production, directing, and cinematography in various real-life practical locations. Practical application of solving problems and communication within limitations of production experience. Concurrently scheduled with course C168. 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 knowledge about what kind of work is saleable in America, and practice working within distinct confines of commercial genre. Letter grading.

480. Timing for Animation. (4) Lecture, three hours; laboratory, three hours. Process of animation timing through lectures, discussion, and lab. Letter grading.


C491B. 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 credit. Concurrently scheduled with course C181B, S/U or letter grading.

C481C. Animation Workshop. (4 or 8) Studio, six hours. Preparation: storyboard at first class meeting; Requisite: 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 16 units. Concurrently scheduled with course C181B, S/U or letter grading.

482A-482B. Advanced Animation Workshops. (4 to 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-483B-483C. Advanced Computer Animation. (4 to 8 each) Lecture, six hours; laboratory, four hours. Requisites: courses 181A, 181C, 482A. Recommended: course 482B. Course 483B is requisite to 483C, which is requisite to 483D. Creation and production of complete animation for advanced computer animated film. Letter grading.

484A-484B. Visual Thinking and Organization for Animation. (4–4) Lecture, six hours; laboratory, four hours. Course 484A is requisite to 484B. 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, animation, commissioning, 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 Production. (2 to 4) Tutorial, four to eight hours; studio, to be arranged. Advanced study of selected topic. May be repeated for maximum of 16 units. Letter grading.

487. Directed Individual Study: Postproduction Laboratory. (4) Laboratory, eight hours. Limited to MFA program production students. Completion 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. Requisites: courses 181A, 181B, 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 to eight hours; studio, to be arranged. Computer animation film or tape. May be repeated for maximum of 16 units. Letter grading.

489B. Production in Computer Animation. (4 to 8) Lecture, six hours; laboratory, four to eight hours. Requisite: course 489A. Instruction in creation, preparation, and production of complete and original computer animation film or tape. May be repeated for maximum of 16 units. Letter grading.

495A. Practice of Teaching Film and Television. (2) Seminar, three hours. Required of all teaching assistants and associates in critical studies program. Observation and preparation of graduate students who have responsibility to assist in teaching undergraduate courses in department; discussion of problems common to teaching experience. Letter grading.

496. Practice of Teaching Film and Television. (2) Discussion, two hours. Required once of all teaching assistants and associates in department. Orientation and preparation of graduate students who have responsibility to assist in teaching undergraduate courses in department; discussion of problems common to teaching experience. May not be applied toward MA, MFA, or PhD. May be repeated. S/U or letter grading.

498. Professional Internship in Film and Television. (4, 8, or 12) Tutorial, to be arranged. Full- or part-time at studio or on professional project. Designed for MFA program advanced students. Internship at various film, television, or theater facilities accentuating creative experience. May not be applied toward MA, MFA, or PhD. May be repeated. S/U or letter grading.
Food Studies

Interdisciplinary Minor
College of Letters and Science
A316 Murphy Hall
Box 951571
Los Angeles, CA 90095-1571

Food Studies
310-206-1698
E-mail contact
Amy C. Rowat, PhD, Chair

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.

Admission
To be eligible for the Food Studies minor, students must be in good academic standing (have an overall grade-point average of 2.0 or better) and have completed or be enrolled in one of the required elective courses for the minor. To apply, students must file an online application through MyUCLA. The application is open during weeks one through three of each academic quarter. See the minor website for more information.

The Minor

Required Elective Courses (24 to 27 units): Six courses, with at least one course from each thematic group.


Required Capstone Course (4 units): Food Studies 195CE or 199. The capstone requirement gives students the opportunity to either put their studies into practice through internships or complete independent research in a food-related area of interest. The capstone course is required for completion of the minor. It must be the last course completed for the minor, after all other courses have been completed or concurrently with one remaining course requirement.

Policies
No more than two lower-division courses may be applied toward the minor. Students may petition to have courses other than those listed above under the required elective courses be applied toward the minor. Contact the academic counselor for the Food Studies minor for information on how to 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.

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 food studies and critical study of 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 many 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 Pompeian 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 presentation 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, 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 gardening, and food insecurity. Focus on representation of such issues in documentary, 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. 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 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. (5) (Same as English M118F and Society and Genetics M132) Lecture, four hours; discussion, one hour (when scheduled). Requisite: English Composition 3. 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. Required reading. English composition knowledge. Explores the meaning of food in Medieval and Early Modern Europe through lenses 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 develop knowledge of the 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 Local to Global. (4) (Same as Sociology and Gender Studies M131 and Sociology M136) Lecture, three hours; discussion, one hour. Questions of food and health are both individual and social. Students develop tools for understanding the relationship between individual eaters, medicine, and social organization of food production and processing through set of research frameworks newly emerging 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 pasteurization, processing, and food safety practices. Examines related questions of how pesticides and fertilizers tie diets to environmental consequences for health; and influences of food production and processing on emerging infectious disease as effects of large-scale agriculture; planetary health that link individual human metabolism to agricultural health to issues of sustainable agriculture, for example how pesticides and fertilizers tie diets to environments; and resilience of cultural food systems in face of environmental change as issue of reproducibility of health. Letter grading.

159. Food and Health in Global Perspective. (4) Lecture, three hours. Study problematizes and adds depth to common-sense understandings of healthy and unhealthy food through examination of relationships 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 health, especially in terms of diet; relationship between food practices and evolutionary biology, as well as particular environments of societies, cultural systems, and health implications; newly 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, including the relationships between climate and environmental impacts. P/NP or letter grading.

M170X. Food Studies and Food Justice in Los Angeles. (4) (Formerly numbered M170X.) 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, including the relationships between climate and environmental impacts. P/NP or letter grading.

M176X. Seminar in Food. (9) (Formerly numbered M176X.) Same as Community Engagement and Social Change M176XP and Public Affairs M176X) 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, fishing, 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.

179. Honors Seminar in Los Angeles: Narrating Past, Imagining Futures. (4) (Same as World Arts and Cultures M179.) Lecture, two hours; 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 farm cares. Through ethnocultural and oral history methodologies, students learn how food activists organize themselves and mobilize creative to combat 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.

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 under the supervision of the 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.

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. This includes 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. 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.

196. Research Apprenticeship in Food Studies. (4) Tutorial, one hour. Entry-level research apprenticeship under guidance of faculty mentors affiliated with Food Studies minor. Collaboration with faculty mentors on their research in area related to food studies. May be repeated for credit. Individual contract required. 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 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 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 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.

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. Survey of Ancient Near Eastern Literatures in English: Mesopotamia
150B. Survey of Ancient Near Eastern Literatures in English: Egypt

Arabic (Near Eastern Languages and Cultures)

150. Classical Arabic Literature in English

Armenian (Near Eastern Languages and Cultures)

150A. Survey of Armenian Literature in English

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

126. Coldwar Central European Culture
<table>
<thead>
<tr>
<th>European Languages and Transcultural Studies (European Languages and Transcultural Studies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>112. Medieval Foundations of European Civilization</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>French (European Languages and Transcultural Studies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>160. Francophone Cultures in English</td>
</tr>
<tr>
<td>161. French and Francophone Theater in Translation</td>
</tr>
<tr>
<td>163. French and Francophone Short Story in Translation</td>
</tr>
<tr>
<td>164. French and Francophone Novel in Translation</td>
</tr>
<tr>
<td>166. French and Francophone Autobiography in Translation</td>
</tr>
<tr>
<td>191A. Variable Topics Research Seminars in Translation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>German (European Languages and Transcultural Studies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50B. Great Works of German Literature in Translation: Romanticism to Present</td>
</tr>
<tr>
<td>56. Figures Who Changed World: Cosmopolitanisms within a Global Context</td>
</tr>
<tr>
<td>59. Holocaust in Film and Literature</td>
</tr>
<tr>
<td>61A. Modern Metropolis: Berlin</td>
</tr>
<tr>
<td>102. War, Politics, Art</td>
</tr>
<tr>
<td>103. German Film in Cultural Context: Early German Film</td>
</tr>
<tr>
<td>104. German Film in Cultural Context, 1945 to Present</td>
</tr>
<tr>
<td>109. Jewish Question and German Thought</td>
</tr>
<tr>
<td>110. Special Topics in Modern Literature and Culture</td>
</tr>
<tr>
<td>112. Feminist Issues in German Literature and Culture</td>
</tr>
<tr>
<td>113. German Folklore</td>
</tr>
<tr>
<td>114. Fairy Tales and Fantastic</td>
</tr>
<tr>
<td>117. German Exile Culture in Los Angeles</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hungarian (Slavic, East European, and Eurasian Languages and Cultures)</th>
</tr>
</thead>
<tbody>
<tr>
<td>121. Survey of Hungarian Literature in Translation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Iranian (Near Eastern Languages and Cultures)</th>
</tr>
</thead>
<tbody>
<tr>
<td>150A-150B. Survey of Persian Literature in English</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Italian (European Languages and Transcultural Studies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>42A. Italy through Ages in English: Saints and Sinners in Early Modern Italy</td>
</tr>
<tr>
<td>42B. Italy through Ages in English: Modern and Contemporary Italy</td>
</tr>
<tr>
<td>42C. Italy through Ages in English: Food and Literature in Italy</td>
</tr>
<tr>
<td>46. Italian Cinema and Culture in English</td>
</tr>
<tr>
<td>50A. Masterpieces of Italian Literature in English: Middle Ages to Baroque</td>
</tr>
<tr>
<td>50B. Masterpieces of Italian Literature in English: Enlightenment to Postmodernity</td>
</tr>
<tr>
<td>102A-102B-102C. Italian Cultural Experience in English</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Romanian (Slavic, East European, and Eurasian Languages and Cultures)</th>
</tr>
</thead>
<tbody>
<tr>
<td>152. Survey of Romanian Literature</td>
</tr>
</tbody>
</table>
Russian (Slavic, East European, and Eurasian Languages and Cultures)
25–25W. Great Russian Novel
30. Russian Literature and World Cinema
M118. History of Russia, Origins to Rise of Muscovy
119. Golden Age and Great Realists
120. Literature and Revolution
121. Russian Pop Culture
C124C. Studies in Russian Literature: Chekhov
C124D. Studies in Russian Literature: Dostoevsky
C124N. Studies in Russian Literature: Nabokov
C124T. Studies in Russian Literature: Tolstoy
125. Russian Novel in Its European Setting
126. Women in Russian Literature
128. Russian Science Fiction
C170. Russian Folklore
Scandinavian (European Languages and Transcultural Studies)
40–40W. Heroic Journey in Northern Myth, Legend, and Epic
50–50W. Introduction to Scandinavian Literatures and Cultures
60–60W. Introduction to Nordic Cinema
C130. Introduction to Viking Age
C133A. Saga
134. Scandinavian Mythology
C137. Old Norse Literature and Society
138. Vikings
C141A. Theory of Scandinavian Novel
141B. Nordic Poetry
141C. Short Story in Scandinavia
142A. Introduction to Nordic Theater and Drama
142A. Scandinavian Detective Fiction
143C. Scandinavian Crime Literature
C145A. Henrik Ibsen
C145B. Knut Hamsun
C145A. August Strindberg
147A. Hans Christian Andersen
C147B. Søren Kierkegaard
147C. Karen Blixen
154. Romanticism
156. Scandinavian Literature of 20th Century
157. Contemporary Nordic Literature
161. Introduction to Nordic Cinema
C163A. Introduction to Danish Cinema
C163B. Introduction to Swedish Cinema
C163C. Introduction to Norwegian Cinema
C166A. Ingmar Bergman
C166C. Carl Dreyer
167. Topics in European Identities in Classic Hollywood and Los Angeles, 1924–1950
C171. Introduction to Scandinavian Folklore
172A. Nordic Folk and Fairy Tales
C174A. Minority Cultures in Scandinavia
173A. Popular Culture in Scandinavia
174B. Queer Scandinavia
C175. Introduction to Sami Language and Culture
C175. Introduction to Sami Language and Culture
C180. Literature and Scandinavian Society
C185. Seminar: Scandinavian Literature
Serbian/Croatian (Slavic, East European, and Eurasian Languages and Cultures)
154. South Slavic Literature
Slavic (Slavic, East European, and Eurasian Languages and Cultures)
90. Introduction to Slavic Civilization
South Asian (Asian Languages and Cultures)
150. Classical Indian Literature in Translation
Southeast Asian (Asian Languages and Cultures)
70. Modern Southeast Asian Literature
90. Modern Literatures in Southeast Asia
130. Topics in Southeast Asian Literature
Spanish (Spanish and Portuguese)
60A. Hispanic Literatures in Translation: Spanish Literature
60B. Hispanic Literatures in Translation: Spanish-American Literature
60C. Hispanic Literatures in Translation: Don Quijote
Ukrainian (Slavic, East European, and Eurasian Languages and Cultures)
152. Ukrainian Literature
Vietnamese (Asian Languages and Cultures)
CM155. Topics in Vietnamese Cinema and/or Literature
Yiddish (European Languages and Transcultural Studies)
121A. 20th-Century Yiddish Poetry in English Translation
121B. 20th-Century Yiddish Prose and Drama in English Translation
121C. Special Topics in Yiddish Literature in English Translation

FRENCH AND FRANCOPHONE STUDIES
See European Languages and Transcultural Studies

FRESHMAN GENERAL EDUCATION CLUSTERS
See Cluster Program

GENDER STUDIES
College of Letters and Science
1120 Rolfe Hall
Box 951504
Los Angeles, CA 90095-1504
Gender Studies
310-206-8101
Department e-mail
Elizabeth A. Marchant, PhD, Chair

Faculty Roster

Professors
Alicia Gaspar de Alba, PhD
Mishuana R. Goeman, PhD
Gil Z. Hochberg, PhD
Grace Kyungwon Hong, PhD
Douglas M. Kelner, PhD
Rachel C. Lee, PhD
Purnima Mankekar, PhD
Kathleen A. McHugh, PhD
Nancy M. Mithlo, PhD
Rafael Pérez-Torres, PhD
Sherene H. Razack, PhD (Penny Kanner Endowed Professor of Women’s Studies)
Lucia Re, PhD, Dottore in Lettere
Abigail C. Saguy, PhD
Jennifer A. Sharpe, PhD
David Delgado Shorter, PhD
Shannon E. Speed, PhD
Juliet A. Williams, PhD

Professors Emeriti
Sondra Hale, PhD
Sandra Harding, PhD
Françoise Lionnet, PhD
Christine A. Littleton, JD
Susan K. McClary, PhD

Associate Professors
Maylei S. Blackwell, PhD
Lucy M. Burns, PhD
Jessica R. Cattellino, PhD
Lieba B. Faier, PhD
Aisha K. Finch, PhD
Sarah Haley, PhD
Elizabeth A. Marchant, PhD
Uri G. McMillan, PhD
Safiya U. Noble, PhD
Kathryn Norberg, PhD
Sharon J. Traweek, PhD

Assistant Professors
Juliann T. Anesi, PhD
Joshua J. Guzman, PhD
Juliann T. Anesi, PhD
Sarah Haley, PhD

Overview
The Department of Gender Studies offers interdisciplinary academic programs that are both nationally and transnationally oriented. Students develop critical reasoning and analytical skills, a deep appreciation for complexities of power and asymmetries in gender relations across time, class, and cultures, and conceptual tools for social change.

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 con-
cepts, 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

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.

Preparation for the Major

Required: Gender Studies 10. Students must also complete departmental lower-division requisites, as applicable, for upper-division gender studies courses.

Transfer Students

Transfer applicants to the Gender Studies major must complete the following introductory courses prior to admission to UCLA: one multidisciplinary gender studies course and departmental lower-division requisite courses.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

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).

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 undergraduate 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 undergraduate 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. 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.

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.

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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.

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 special 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. Designed as adjunct to lower-division lecture course. Individual work with lecture course instructor to explore 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

101W. Writing Gender. (5) 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 composition, Generation and continuous development of paper topic as result of in-class discussions and formal writing exercises. Small writing groups assist students in understanding relationship between what written thoughts are presented and how they are comprehended by different readers. Students gain understanding of writing process, including topic conceptualization, objective of writing project, 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 gendered social-subordination and ways feminist theorists have conceived and critiqued dominant theories of power. How have women’s and other social movements defined and challenged social, political, and economic subordination? How have feminist theorists addressed subject of power? How have they analyzed power dynamics, neoliberalism, and globalization produce distinctive forms of gendered violence, gendered knowledge, and gendered subjectivities? How are gender and sexualities 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 studies 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 bodily production and politics. How has medicine, health, and cultural studies 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 the gendered body been represented in different visual cultures? How have embodied identities been produced in different historical and geographic contexts? What is relation between embodiment and desire? P/NP or letter grading.

105. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Chicana/o and Central American Studies M106B, Gerontology M104C, Public Affairs M131, and UCSC) Lecture, four hours; discussion, one hour. 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 of above, context, intra- and inter-disciplinary 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 issues that impact women’s health, healthcare, and healthcare providers. Discussion of basic health concepts and self-care; consideration of a women’s health specialty and ways to deliver health care to women. Exploration of roles and lifestyles of female physicians. P/NP or letter grading.

105A. Premodern Queer Literatures and Cultures. (5) (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 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.

105B. 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). 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.

105C. Queer Literatures and Cultures after 1970. (5) (Same as English 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, specifically literature, produced by queers 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 as Andy Warhol, Jean Genet, Leslie Feinberg, Achy Obejas, Essex Hemphill, Audre Lorde, Cheryl Dunev, and Alison Bechdel may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

105D. Studies in Queer Literatures and Cultures. (5) (Same as English M101D and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101D) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: 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 movements. May be repeated for credit with topic or instructor change. P/NP or letter grading.

106. Imaginary Women. (5) (Same as Honors College M106B) Seminar, four hours. Designed for junior/senior, graduate, or advanced undergraduate students majoring in a variety of disciplines. Examination of the gendered inscriptions of Oedipal types—abducting wife/mother, infanticide mother, intellectual woman, and warrior woman—as they appear in their classical and modern manifestations in European and American cultures. P/NP or letter grading.

107A. Studies in Women’s Writing. (5) (Same as English M107A) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Focus on our own 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.

107B. Studies in Gender and Sexuality. (5) (Same as English M107B and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M107B) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Examination of literary and cultural production through lens of gender and sexuality. Depending on instructor, emphasis may be historical, 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.


109. Women in Jazz. (4) (Same as African American Studies M109, and Global Jazz 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.

110C. Topics in Feminist Philosophy: Metaphysics and Epistemology. (4) (Same as Philosophy M110C and Women’s Studies M110, and Global Jazz Studies M110) Lecture, four hours; discussion, one hour. Interpretation of works by women in philosophy addressing topics such as social justice, feminist theories, and liberation. Philosophical approach to feminist theories. May be repeated for credit with consent of instructor. Letter grading.

111. 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 genies, and images of women in Hollywood cinema, alternative and independent cinema from silent era to present. Letter grading.

112. Special Topics in Women and Arts. (4) Lecture, three hours. Requisite: 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, and interdisciplinary. Consideration of artistic production of women in art, culture, 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 requisite: 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
117. Introduction to Queer Latino/Latina Studies. (4) Lecture, three hours. Examination of production of Latino/Latina identity and its limitations as it emerges within contemporary literature, music, film, and performance art. Engagement with texts that posit queer analytical approach to study how Latinx identities are affirmed by modern Latinx communities and examined in opposition to dominant notions of Latino in popular culture. Critical engagement of limits of knowledge production around Latino/Latina identity, and new artistics that abide by question of Latinidad rather than posit answer or solution to its political consequences in contemporary U.S. culture. Study draws upon feminist and queer artists such as Ana Mendieta, Nao Bustamente, Arlene Gottfried, and Felix-Gonzales Torres, Gil Cuadros, and Gregg Araki. P/N or letter grading.

118. Queering American History. (4) Same as Film and Television M124.) Lecture, three hours. Examination of production of Queer and Transgender history, culture, and political economy of lesbian, gay, bisexual, and transgender Los Angeles. Letter grading.

119. Racial Violence and Law. (4) Lecture, three hours. Requisite: course 10. Through feminist, anti-colonial, and anti-racist framework, exploration of racial violence and appropriate anti-violence strategies. Offers theoretical and practical understanding of 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, how we understand violence at specific sites, e.g., carceral sites, schools, streets, borders, and in different historical contexts; how individuals come to participate as, remain indifferent to, or approve of violence; role of hegemonic masculinity and femininity in these processes; and how violence is sexualized. Exploration of these broad questions through consideration of extraordinary racial violence in and our everyday, black and anti-Mexican violence, racial violence underpinning anti-migrant and anti-refugee movements, torture, terror, and state violence. P/N or letter grading.

120. Feminist and Queer Theory. (5) Same as English M129.) Lecture, three hours. Introduction to a range of influential and contemporary women’s and gender theories and practices that are animated by complex politics of gender, sexuality, and religion. Topics include feminist and queer theories, intersectionality, and social movements in Korea and Korean diaspora through interdisciplinary feminist and critical area studies approach. Use of postcolonial, anti-racist, and intersectional feminist lens to examine Korean and Korean diaspora as site of inquiry and field of knowledge. Close examination of several contemporary political issues, focusing on salient political theologies and oppositional social movements 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 transnational diasporic activism concerning war, imperialism, and militarism; antimilitarism and xenophobia; pro-democracy movements and labor organizing; Catholic and Buddhist solidarity and sanctuary geography. P/N or letter grading.

CM132A. Chicana Feminism. (4) Same as Chicana/o and Central American Studies CM110.) 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 Chicanas. Analysis of writings of Chicanas who do not identify as feminist but respond to gender inequities faced by Chicanas both within Chicanas' own community and dominant society. Attention to Anglo-European and Third World women. Concurrently scheduled with course CM232A. P/N or letter grading.

CM132B. Contemporary Issues among Chicanas. (4) Same as Chicana/o and Central American Studies M134.) Lecture, two and one half hours. Requisite: course 10. Overview of conditions facing Chicanas in changing ideas of gender and sexuality on specific historical cultures. May be repeated for credit with topic or instructor change. P/N or letter grading.

127. Women in Russian Literature. (4) Same as Russian M127.) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Introduction to alternative readings 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/N 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 geographies of heteronormativity and urban mega-
U.S., including issues on family, immigration, reproduction, employment conditions. Comparative analysis with other Latinas. P/NP or letter grading.


M133A-M133B. History of Women in Europe. (4-4) (Same as History M133A or M133B.) 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 History M133C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of prostitution in the ways that women’s experiences variously shaped the formation of the modern sex industry. P/NP or letter grading.


M135C. Bilingual Writing Workshop. (4) Same as Chicano/a and Central American 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 aesthetics to be central theme. Discussion and analysis of Chicana/Chicano and Latina/Latino short story collections. Peer critique of weekly writing assignments. Emphasis on narrative techniques such as characterizations, setting, point of view, and dialogue, and magical realism as prevailing Chicana/Latina style. Some attention to practice of manuscript preparation, public reading, and publication. Letter grading.

M136. Music and Gender. (5) Same as Musicology 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 music; methods in feminist 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. Designed for seniors. Examination of work behavior of women and men, focusing on career choice, job findings, leadership, performance evaluation, discrimination and evaluation bias, job satisfaction, and interdependence of work and family roles. P/NP or letter grading.

138. Gender and Popular Culture. (5) Lecture, three hours; screenings, two hours. Limited to juniors/seniors. Conceptual tools and critical skills necessary to rigorously interrogate gender politics of popular culture in the U.S. context. Focus on theoretical questions about popular culture and exploration of distinctive power and ideological force exerted by popular culture in American public life. Examination of specific representations of male and female bodies to understand visual vocabulary of gender in popular culture, as well as relationships between visual stereotypes and regimes of power. Consideration of debates concerning transformative potential of popular culture and exploration of capacity and limits of popular culture as agent of social change. Letter grading.

139. Women and Art: Contemporary U.S. (4) Lecture, three hours; Requisite: course 10. Exploration of some significant cultural issues of contemporary American women’s art movement. Representation, resistance, and critical intervention in relationships among visual imagery, expression of women’s experiences, and performance arts as these reflect various perspectives of feminism. Letter grading.

140. Gender, Culture, and Capitalism. (4) Lecture, three hours. In the cultural terrain of production—and reproduction—of and resistance to gendered, racialized, and classed inequalities through active analysis of advertisements, television serials, Disney fairy tales, and performative forms like fortunetelling. Focus on relationships between gender, culture, and capitalism through lenses of transnational feminist and queer cultural studies to explore gendered 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 as a modernization process in world. How and why is this? Who is imprisoned? What historical conditions and ideologies gave rise to this massive explosion in prisoner population? Does prison function as regime in which criminals are punished or imprisoned as response to economic transformation and social disorders? How is current crisis analogous to or distinct from regimes of racialized punishment 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, trends, and racial profiling, immigrant detention, privatization, spatial transformation, gender, violence, prison spending, and political imprisonment. P/NP or letter grading.

CM142D. Racism and Class, Race, and Sexuality. (4) (Formerly numbered CM143.) Same as World Arts and Cultures CM142D.) Lecture, four hours. Designed for seniors. Examination of role of healers, historically and within contemporary culture-sphere, as key to understanding of racism and related functions served by rites of passage and healing rituals and of role of arts in healing troubled communities. Concluded with course CM242X or P/NP or 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 on women’s movement of women and activists 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 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 cohere 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, study of issues 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. Enforced requisite: course 10. Historical examination of black women’s experiences in U.S. from antebellum era to present. By situating their 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 forms of oppression impacted black women’s lives? How is difference constructed through interrelated and overlapping ideologies of race and gender? How do historians uncover their historical lives and what are challenges to such discovery? Examination of their individual and collective struggles for freedom from racism, sexism, and heteropatriarchy as well as their participation in and challenge to social movements, including suffrage, women’s liberation, civil rights, and black liberation. P/NP or letter grading.

M146. Feminist Geography. (4) Same as Geography M146.) Lecture, three hours; discussion, one hour. Critical engagement of gender as concept of geographic inquiry. Gender as spatial process, analysis of feminist geographies and methodologies, 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, two hours; discussion, one hour. Requisite: course 10 or M114 or Psychology 10. Designed for juniors/seniors. Review of research and theory in psychology and gender studies 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 about lesbians in sociocultural context. P/NP or letter grading.

147B. History of Women in Colonial British America and Early U.S., 1600 to 1860. (4) (Same as History M147B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to major themes of women’s history in Early American women from initial confrontation of English and American Indian cultures in early 17th century to rise of women’s rights movement in mid-19th century. P/NP or letter grading.

M147C. Transnational Women’s Organizing in Americas. (4) (Same as Chicana/o and Central American Studies CM147C.) 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 migration, economic growth, and processes 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 accelerated globalization has been linked to feminization of labor and migration, environmental degradation, questions of diaspora, sexuality, and cultural displacement, and to concurrently shrinking and growing 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 History M147D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to major themes in history of American women from abolition of slavery and Civil War to rise and consequences of second-wave feminism. P/NP or letter grading.

M149. Media: Gender, Race, Class, and Sexuality. (5) (Same as Communication M149 and Labor Studies M149.) Lecture, four hours; activity, one hour. Limited to major or minor in Communication; for others, by permission of majors and Labor Studies minors. Examination of manner in which media culture induces people to perceive various dominant and dominated and/or colonized groups of people. Ways in which women, gay, lesbian, bisexual, transgendered, racial, and ethnic marginalized peoples, classes, relations, and other subaltern or subordinate groups are presented and often represented in media and their implications for employment of practical applications of communications and feminist theories for understanding ideological nature of stereotyping and politics of representation through use of media in generating cultural values, class discussions, and readings. Introduction to theory and practice of cultural studies. Letter grading.

152. Gender, Disability, and Education. (4) Lecture, three hours; discussion, one hour. Course on gender, disability, and education engages intersections of disability as it is theorized, constructed, and lived as post-neocolonial condition. Study bridges disability scholarship between global
such as gender, race, sexuality, and social class—and feminist disability studies—which assumes disability is a political issue that affects all people. It explores the experiences and impacts of disability on society. It examines how disability intersects with other oppressions, such as gender, race, and class, and how it is constructed through social and cultural norms and practices. Critical disability studies have influenced diverse fields of study, including education, philosophy, and law.


M154Q. Selected Topics in Gender Systems. (4) (Same as Anthropology M145Q) Lecture, three hours. Recommended preparation: prior anthropology or gender studies courses. Recommended for junior/senior sociology majors. Comparative study of women's lives and gender systems and cultures from anthropological perspective. Critical review 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.

M154R. Women and Social Movements. (4) (Same as Anthropology M145R) Lecture/discussion, three hours. Recommended preparation: prior women's studies or anthropology courses. Comparative studies of social movements (e.g., nationalist, socialist, liberal/revolutionary), beginning with Russia and China and 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.

M154T. Women in Japanese Society. (4) (Same as Anthropology M145T) Lecture, three hours. Preparation: introductory sociocultural anthropology course. The anthropology of Japan has long viewed Japan as a homogeneous 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.: Rebellious Women in the American Revolution. (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 rebellions, and labor unions. Study of dramatic changes to gender roles over course of the 20th century through actions of rebellious women who led for myriad of changes in women's lives. Offered in summer of odd years. P/NP or letter grading.

M157. Chicana Historiography. (4) (Same as Chicana/o and Central American Studies M158 and History M151D) Lecture, four hours. Examination of Chicana historiography, looking closely at how practice of writing history has been used by Chicanas into particular narratives. Using Chicana feminist approaches to study of history, revisiting of specific historical periods and moments such as Spanish Conquest, Mexican Period, American Revolution, Mexican Revolution, and Chicano Movement to excavate untold stories about women's participation in and contribution to making of Chicanas and Chicano history. P/NP or letter grading.

M158. Women, Gender, and Sexuality in Italian Culture. (4) (Same as Italian M158) Lecture, three hours; discussion, one hour. Analysis of gender roles, images of femininity and masculinity, patriarchy, myths of Ma- donna and Virgin Mary, and relation 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. Recommended preparation: prior anthropology or history courses. “nappy-headed hos” comment to controversies about transgender athletes or athletes with protheses; from covers of magazines to violence in Dodger’s Stadium parking lot; footballers not standing during 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 sexual 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 creation of International Olympic Games in 1894, athletes with disabilities have had, and been denied, formal opportunities to compete with able-bodied ath- letes. Overview of some major topics of discussion concerning international standards of athletic competition and disability, addressing variety of perspectives and themes on disability and sport, such as passing, sports integration, competition versus charity, and masculinity. Sources include readings, film, 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. Enforced requisite: course 10 or Sociology 1. Examination of processes by which gender is socially con- structed. Topics include biological and cultural aspects of sex and sociological gender, causes and conse- quences 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 some comparative material. Particular em- phasis on analysis of causes and consequences of job segregation by gender and of wage inequality. P/NP or letter grading.

M164. Politics of Reproduction. (4) (Same as So- ciology M164) Lecture, three hours; discussion, one hour. Title refers to intersection between politics and life cycle. Topics include social construction of gender and politics of reproduction: sex differences in education, marriage, occupation, fertility, and reproductive technologies. 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 done on women not only in and of themselves but in light of larger systems of op-pression, with focus on Filipino, Vietnamese, Singaporean, and Indonesian women. P/NP or letter grading.

M165. Psychology of Gender. (4) (Same as Psy- chology M165) Lecture, three hours. Consideration of psychological literature relevant to understanding con- temporary sex differences. Topics include sex-role develop- ment and role development, physiological and personal- ity differences between men and women, sex differ- ences in intellectual 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. Sociolog- ical perspectives on formation, control, and resistance of lesbian, gay, bisexual, and transsexual identities and behaviors. Variable topics include identity and community; age, class, gender, and racial diversity; and analysis of con- temporary issues affecting contested sexualities. Letter grading.

168. Feminist Economics in Globalizing World. (4) Lecture, four hours. Preparation: satisfaction of Letters and Science Writing II requirement. Requisite: course 10. Designed for gender economics field of feminist economics, with emphasis on development experiences in globalizing world economy. Overview of gender inequalities such as gender division of labor in production and reproduction, women’s unpaid labor, and wage gaps between men and women in different world economy regions; feminist critiques of economics and of theoretical debates with women. Study of both theory and production of techniques to inform student analysis of media and critical media literacy projects. Concurrently sched- uled with course CM278. 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). De- signed for juniors/seniors. Topics include women and family, women in Confucian ideology, women in literate culture, feminist movement, and women and commu- nist revolution. P/NP or letter grading.

171A. Women, Gender, and Law: Jurisprudence of Sexual Inequality. (4) (Same as Law M171A) Lecture, three hours; discussion, one hour. Enforced requisite: course 102 or 103 or 104. Exploration of models of equality de- scribed and/or advocated by legal theorists primarily in U.S.—equality of opportunity, equal protection, equality of respect, etc.—using specific problems of women (e.g., sexual harassment, pregnancy leave policy, access to safe and effective reproductive con- traceptive technologies) as a basis for analysis and cri- tique. Specific focus may vary by instructor (e.g., con- sideration of sexual equality theories to issues of gender equality, legal status of women in countries out- side U.S. or from perspectives of international human rights). May be repeated for credit with topic or in- structor change. P/NP or letter grading.

M172. Afro-American Woman in U.S. (4) (Same as African American Studies M172) Lecture, two and one half hours. Designed for juniors/seniors. Impact of social, psychological, political, and economic forces which impact on interper- sonal relationships of Afro-American women mem- bers of large society and as members of their biolog- ical 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). Enforced requisite: course 10. Japanese women in Japanese and world history through state documents, autobiographical voices, contemporary television, and other varying historical sources, including topics such as political power order (1900 to 1939), women, war, and empire (1930 to 1945), and women in consumer society (1980s 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 influ- ence 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 relationship between women and cities: (1) how cities have affected women’s opportuni- ties 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 Gen- der: Theory and Production. (4) (Same as Education CM178) Lecture, three hours; discussion, one hour. Study of both theory and production techniques to inform student analysis of media and critical media literacy projects. Concurrently sched- uled with course CM278. 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 with topic change. 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 an individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit with topic change. 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 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/N or letter grading.

M191E. Topics in Gender and Sexuality. (5) Same as English M191E and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M191E 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/N or letter grading.

189A. Introduction to Interdisciplinary Methods in Gender Studies. (4–4) Tutorial, four hours. Limited to junior/senior gender studies honors program students. Three-term sequence of honors seminars: three-credit courses in gender studies to be studied in greater depth through supplemental readings and research. Issues concern interdisciplinary, intersectional feminist methods and changing boundaries of the field over time. Exploration of critical tools to utilize and interrogate existing methodologies. Issues include examination of how feminisms have shaped and been shaped by processes of knowledge production and circulation across disciplinary boundaries, cultures, and paradigms, and in the process of producing research and scholarship. May be repeated once for credit with instructor change. Letter grading.

203. Epistemologies of Gender. (4) Lecture/discussion, three hours. Focus on debates concerning methods of inquiry in gender and sexuality studies and exploration of intersections of feminist studies, masculinity studies, and queer studies. Debates and interventions concern interdisciplinary, intersectional feminist methods and changing boundaries of field over time. Exploration of critical tools to utilize and interrogate existing methodologies. Issues include examination of how feminisms have shaped and been shaped by processes of knowledge production and circulation across disciplinary boundaries, cultures, and paradigms, and in the process of producing research and scholarship. May be repeated once for credit with instructor change. Letter grading.

204. Research Design and Professional Development. (4) Seminar, three hours. Required of all third-year gender studies graduate students. To be taken after all other coursework is complete; primarily geared toward proposal writing for dissertations and outside grants. Focus on development of proposals by providing structured process with incremental steps toward writing of dissertation proposal draft. Professional development for students as they prepare to enter academia or other professions. Help in
preparation for fall grant-writing season, exploration of job/interview process, development of materials to assist in teaching, and analysis of various job markets. May be repeated once for credit with instructor change. Letter grading.

205. Sub-Saharan Gender Studies. (4) Seminar, three hours. Departmental topics course that offers in-depth aspects of field. Limits 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 in one or more major spheres of public, work, family, political system, healthcare, legal regulation). Topics may focus on public health, political science, medicine, workplace studies, and social welfare. May be repeated for credit with topic or 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 trans-gender 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. Designed for graduate students. In-depth study of representations of gender and sexuality in literature and performance culture, with special attention to race. Topics include flow of artistic cultural production across national borders, theorizing feminism as diasporic or multicultural formation. Letter grading.

M232A. Chicana Feminism. (4) (Same as Chicana/o and Central American Studies CM214.) 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 feminist. Analysis of Chicanas who do identify as feminist but whose practices attend to gender inequities faced by Chicanas both within Chica/Chicana community and dominant society. Attention to Anglo-European and Third World women. Concurrently scheduled with course CM132A. S/U or letter grading.

M238. Sociology of Gender and Sexuality. (4) (Same as Sociology M238.) Seminar, three hours. Designed for graduate students. Analysis of cultural and American feminist theory relevant to sociologists. Exploration of critiques of second wave feminism by working class feminists and/or feminists of color, feminist scholars from other countries, and recent so-called antifeminist feminists. Discussion of directions for future feminist sociological theory. Letter grading.

CM243XP. Healing, Ritual, and Transformation. (4) (Formerly numbered CM243.) (Same as World Arts and Cultures CM240XP.) Lecture, four hours. Designed for graduate students. Examination of role of healers, historically and within contemporary culture-specific contexts. Exploration of psychosocial functions served by rites of passage and healing rituals and of role of arts in healing troubled communities. Concurrently scheduled with course CM143XP: S/U or 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, four hours. Examination of some of most influential critical theorists, including Marx, Nietzsche, Freud, Marcuse, de Saussure, Fanon, and de Beauvoir and the contributions to critique of contemporary education, society, and politics. S/U or letter grading.

M255. Cross-Cultural Perspectives on Gender. (4) (Same as Sociology M225.) 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) (Same as History M259A-M259B.) Seminar, three hours. Course M259A is requisite to M259B. History of women’s social, political, and cultural issues seen in U.S. and comparative context. In Progress (M259A) and letter (M259B) grading.

M261. Gender and Music in Cross-Cultural Perspective. (4) (Same as Ethnomusicology M261.) Seminar, three hours. Designed to foster in-depth understanding of gender in study of music as culture. Topics range from ethnomusicology of gender and sexuality, (de)coding of messages of resistance, and gender representation to gendered politics via musical production, S/U or letter grading.

M263. Gender Systems. (4) (Same as Anthropology M243.) Seminar, three hours. Current theoretical developments in understanding gender systems cross-culturally, with emphasis on relationships between systems of gender, economy, ideological systems, and social inequality. Selection of ethnographic cases from recent literature. S/U or letter grading.

M266. Feminist Theory and Social Sciences Research. (4) (Same as Education M266.) Lecture, four hours. Examination of how diverse feminist social theories of last quarter century have both challenged and strengthened developments in understanding gender systems and their methodologies. Introduction especially to feminist standpoint theory, distinctive critical theory methodology now widely used in social sciences. Letter grading.

CM272. Alternate Traditions: In Search of Female Voices in Contemporary Literature. (5) (Same as Comparative Literature CM272.) Seminar, four hours. Designed for graduate students. Investigation of narrative texts by contemporary French, German, English, American, Spanish American, African, and Asian women writers from cross-cultural perspective. Concentration on critical methods and techniques. Concurrently scheduled with course CM172. S/U or letter grading.

CM278. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Education CM278.) Seminar, three hours. Corequisite: course CM278L. 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 CM178. Letter grading.

CM278L. Critical Media Literacy and Politics of Gender: Laboratory. (2) (Same as Education CM278.) Laboratory, two hours. Corequisite: course CM278. Hands-on production experience as integral component of course CM278. Concurrently scheduled with course CM178L. Letter grading.

285. Special Topics in Women’s Studies. (4) Lecture/discussion, four hours. Designed for graduate students. Selected 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 first year. Requisites: 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, three hours. In Progress. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Requisite or corequisite: course 495. Teaching apprentice position under general 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 dialog and emphasis on hierarchy. Required of students enrolled in teaching professor course the first time only in undergraduate gender studies courses. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Requisites: courses 201, 202, 203. Directed individual research and study in an 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.


GEOGRAPHY
College of Letters and Science
1255 Bunche Hall
Box 951524
Los Angeles, CA 90095-1524
Geography
310-825-1071
Gregory S. Okin, PhD, Chair

Faculty Roster
Professors
John A. Agnew, PhD
Stephen A. Bell, PhD
Jared M. Diamond, PhD
C. Cindy Fan, PhD
Thomas W. Gillespie, PhD
Susanna B. Hecht, PhD
Helga M. Leitner, PhD
Dennis P. Lettenmaier, PhD
Glen M. MacDonald, PhD (John Muir Memorial Endowed Professor of Geography)

Gregory S. Okin, PhD
Marilyn N. Raphael, PhD
David L. Rigby, PhD
Ananya Roy, PhD (Meyer and Renee Luskin Professor of Inequality and Democracy)

Yongwei Sheng, PhD
Eric S. Sheppard, PhD (Alexander von Humboldt Endowed Professor of Geography)

Michael E. Shin, PhD
Michael C. Stopper, PhD
A. Park Williams, PhD
Yongkang Xue, PhD

Professors Emeriti
Charles F. Bennett, Jr., PhD
Judith A. Carney, PhD
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 sophisticated 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

Preparation for the Major

Required: Three courses (15 units) as follows: Geography 1 or 2, 3 or 4 or 6, and Statistics 12.

Policies

Each course must be taken for a letter grade.

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.

The Major

Required: Eleven upper-division geography courses (44 units minimum).

Policies

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.

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.

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 of 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

Preparation for the Major

Required: Geography 1 or 2, 3 or 4 or 6, 5, 7, and Statistics 12.

Policies

Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the Geography/Environmental Studies 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, one statistics course, and one upper-division geography course.

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.
ment, and, as the enforced requisite for courses 167, 168, and 169, Geography 7 must be taken prior to enrolling in these courses. Students taking this course as a requisite only may take it as P/NP grading.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major


Geography/Environmental Studies majors are advised to complete the required courses in the human systems core before taking courses in the environmental studies and natural systems core.

Policies

Each course must be taken for a letter grade.

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.

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 7, 2, 3, 4, 6. It is recommended that students take these courses before attempting upper-division courses.

Required Upper-Division Courses (20 units): Three courses from the environmental studies cluster specified within the major and two geography courses from outside the environmental studies cluster.

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 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 collabora-
tion with a faculty advisor and advisory com-
mite. 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.

Program Requirements
Official, specific degree requirements are de-
tailed in program requirements for UCLA grad-
uate degrees, available at the Graduate Divi-
sion 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

Program Requirements
Official, specific degree requirements are de-
tailed in program requirements for UCLA grad-
uate degrees, available at the Graduate Divi-
sion 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. (6) 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 signifi-
cance to people. P/NP or letter grading.
2. Biodiversity in Changing World. (5) Lecture,
three hours; discussion, two hours. Biogeographic explo-
ation of plant and animal diversity and conservation is-
sues on continents and islands around world. Study of physical
ecosystem, 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.
3. Cultural Geography. (5) Lecture, three hours;
discussion, two hours. Introduction to cultural geography of
modern world, with examination of key concepts of
space, time, and landscape as these have shaped and
been shaped by connections between societies and
their local origins of food production. Brief introduction to
physical geography and biogeography of each re-
gion. Discussion of each region’s peoples, languages,
foods, prehistories, and histories. Letter grading.
7. Introduction to Geographic Information Sys-
tems. (5) Lecture, three hours; laboratory, two hours.
Designed for freshmen/sophomores. Introduction to fundamen-
tal principles and concepts necessary to carry out sound geographic analysis with geographic
information systems (GIS). Reinforcement of key is-
Sues 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 and people. Sem-
in topics advertised in department during previous
term. 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 the 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 themes and
issues pertinent to environment and people. Sem-
in topics advertised in department during previous
term. P/NP or letter grading.
88GE. Seminar Sequence: Special Topics in Geo-
graphy. (8 Seminar, three hours. Enforced requisite: course
4 or 5 or 107 or 108 or 117 or 127. Exploration
of aspects of lecture topic through readings, im-
ages, and discussions. P/NP or letter grading.
89. Honors Seminars. (1 Seminar, three hours. Lim-
ited to 20 students. Each semester, a different
Honors seminar course will be offered. The Honors
Honors Seminar, instructor consent. Honors seminar topics advertised in department during previous
term. P/NP or letter grading.
89HC. Honors Contracts. (1 Tutorial, three hours.
Limited to students in College Honors Program. De-
signed and supervised by Honors Program. Each Honors
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 consent noted on transcript. P/NP or
letter grading.
99. Student Research Program. (1 to 2) Seminar, one
hour. Designed for freshmen/sophomores. Introduc-
tion to research methods and techniques. Student
independent projects arranged under faculty mentor.
Research may be for coursework or independent
research. Credit will be awarded on basis of
work completed. P/NP or letter grading.
107. Forest Ecosystems. (4) Lecture, three hours;
lab, two hours. Ecological processes in forest
ecosystems. Ecological succession, species diversity,
and productivity. P/NP or letter grading.
108. Analytical Animal Geography. (4) Limited
students in College Honors Program. De-
signed and supervised by Honors Program. Each Honors
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 consent noted on transcript. P/NP or
letter grading.
(Formerly numbered 116.) Lecture, three hours;
lab, two hours. Examination of theories and examples of invasion of new environments by plants and animals introduced through natural processes or by human activity. P/NP or letter grading.
110. Ecosystem Ecology. (Formerly numbered M117.) Lecture, three hours; lab, two hours. Examination of key concepts of ecosystem
structure and function. Emphasis on processes of ex-
change and spatial distribution of energy and
matter. P/NP or letter grading.
116. Climate Dynamics. (Formerly numbered 114.) Lecture, three hours; lab, one hour. Analysis of past and future
climate changes. P/NP or letter grading.
117. Hydrology. (Formerly numbered 105.) Lecture,
three hours. In-depth exploration of water
resources. P/NP or letter grading.
118. Applied Climatology: Principles of Climate
Impact on Natural Environment. (Formerly num-
bered M106.) (Same as Atmospheric and Oceanic Sci-
ences M106.) Lecture, three hours; discussion, one
hour. Designed for juniors/seniors. Exploration of
climate, weather, and climate-society-ecosystem relationship. P/NP or letter grading.
120. Hydrosphere. (Formerly numbered 106.) Lecture,
Study of water in global and regional systems. P/NP or letter grading.
169A. Problems in Geography: Urban and Regional Development Studies. (4) (Formerly numbered 159A.) Seminar, three hours; reading period, one hour. Prep- ration: completion of three courses in one concentra- tion. Limited to seniors. Seminar course in which stu- dents evaluate specific research projects developed from courses within one concentration. P/N/P or letter grading.

Regions

171A. North America. (4) (Formerly numbered 180.) Lecture, two hours; reading period, one hour. En- designed for juniors/seniors. Delimitation and analysis of principal geographic regions of the U.S. and Canada. P/N/P or letter grading.

171B. California. (4) (Formerly numbered 190.) Lec- ture, three hours; reading period, one hour. Limited to juniors/seniors. Systematic and regional treatment of geography of California, including physical, cultural, and economic aspects and detailed studies of various regions. P/N/P or letter grading.

171C. Metropolitan Los Angeles. (4) (Formerly num- bered 156.) Lecture; three hours; reading period, one hour. Designed for juniors/seniors. Study of origins, growth processes, internal structure and pattern, in- teractions, and spatial problems of Los Angeles metropolitan area. P/N/P or letter grading.

172A. Spanish South America. (4) (Formerly num- bered 182A.) Lecture; three hours; reading period, one hour. Limited to juniors/seniors. Study of geographic factors, physical and cultural, that are basic to understanding historical development of Spanish South America and contemporary economic and cul- tural geography of individual Spanish-speaking coun- tries. P/N/P or letter grading.

172B. Central America. (4) (Formerly numbered 181.) Seminar, two and one half hours. Located at center of American continent, Central America is central player in process of creating important crops for world, and epicenter of massive migration waves. Exploration of Central America to understand way region has been defined by both European colonization and more modern interventions led by neocolonial relations with U.S. Consideration of role of racialization in producing specific racial/spatial dynamics in region. Funda- mental 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 ju- niors/seniors. Geographic factors, physical and cultural, that are basic to understanding historical development of Portuguese South America and con- temporary economic and cultural geography of Brazil. P/N/P 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 capital cities such as Rome, Paris, and Berlin. P/N/P or letter grading.

174A. The Mediterranean World. (4) (Formerly num- bered 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 Mediterrane- an region, with emphasis on 1500s to present. Intro- duction to great disputes in history and ecology cen- tered on this region and character of two shores of Mediterranean basin. P/N/P 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 ques- tions of culture and place in Japan. Exploration of ways to think about Japan itself—how they have been shaped by historical and contemporary interac- tions involving people in both Japan and other parts of world. P/N/P 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, popula- tion, and socioeconomic characteristics of People’s Republic of China. Focus on China’s major role in East Asian and international scene, with special attention to China-Japan and Sino-American relations and their geographic bases. P/N/P 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 em- phasis on people of South or Southeast Asia in their physical, biotic, and cultural environment and its dy- namic transformation. P/N/P or letter grading.

Procedures

178. Conservation Geography Field and Professional Practices. (3) Fieldwork, eight hours; reading period, one hour. Taught in field trips. Limited to senior Geography and Geog- rapic Factors, physical and cultural, that are basic to understanding historical development of Spanish South America and contemporary economic and cul- tural geography of individual Spanish-speaking coun- tries. P/N/P or letter grading.

180. Cartography. (4) (Formerly numbered 167.) Lec- ture, two hours; laboratory, four hours. Enforced re- quirements: course 7. Designed for juniors/seniors. Survey of field of cartography. Theory and construction of map projections, compilation procedures, principles of generalization, symbolization, terrain representation, lettering, drafting and scribbling, and map reproduction methods. P/N/P or letter grading.

181A. Intermediate Geographic Information Sys- tems. (4) (Formerly numbered 168.) Lecture, two hours; laboratory, two hours. Enforced requisites: course 7. Extension of basic concepts presented in course 7. How geographic and spatial analyses in- form, integrate, and extend scientific inquiry in phys- ical, life, and social sciences. Discussion of range of geographic information science. May be repeated for credit with topic change. P/N/P 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 worksta- tions. Spatial manipulation, query, and computation of datasets carried out in project-oriented approach. P/N/P or letter grading.

181C. Geographic Information Systems Program- ming 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, consultation by labora- tory exercises. P/N/P or letter grading.

182A. Introduction to Remote Sensing. (4) (Formerly numbered 169.) Lecture, two hours; laboratory, one hour. Enforced requisite: course 7. Introduction to fast-growing field of environmental monitoring and decision making. Application of Landsat, radar, Global Posi- tioning System (GPS), and Earth Observing System satellites to land-use change, oceanography, meteor- ology, and environmental monitoring. Introduction to digital image-processing and imaging geographic in- formation systems (GIS) software. P/N/P 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 manipu- lating and analyzing image data. Topics include statisti- cal description, geometric and radiometric correc- tion, classification, image enhancement and filtering, and change detection schemes. Reinforcement of procedures presented in lecture with laboratory exer- cises and student projects. P/N/P or letter grading.

182C. Advanced Remote Sensing. (5) (Formerly numbered 174.) Lecture, three hours; laboratory, two hours. Enforced requisite: course 182A. Remote sensing in vis- ible, near-infrared, and thermal wavebands, studied in the context of basic concepts of radiation propagation and interac- tion with matter, how digital remote sensing images are acquired, and constraints on available data and data analysis. P/N/P or letter grading.

184. Environmental Modeling. (4) (Formerly num- bered 166.) Lecture, one hour; laboratory, two hours. Presentation of basic concepts related to computer modeling of biogeochemical cycles, geomorphic pro- cesses, and other phenomena relevant to changing Earth and its inhabitants. Laboratory exercises include building basic computer models and working with ex- isting models. P/N/P or letter grading.

185. Field Methods in Physical Geography. (5) (For- merly numbered 177.) Lecture, four hours; laboratory, three hours. Enforced requisite: course 182A. Exam- ination of field procedures and concepts used in ob- servation, measurement, analysis, and interpretation of Earth's physical character and the 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/N/P or letter grading.

M186. Introduction to Spatial Statistics. (4) (For- merly numbered M171.) (Same as Statistics M171.) Lecture, three hours; laboratory, one hour. Enforced requisite: one course from Statistics 10, 12, 13. Introduction to methods of measurement of geo- graphic distributions and associations. P/N/P or letter grading.

187. Research and Writing in Human Geography. (4) (Formerly numbered 161.) Seminar, three hours. Limited to seniors. Writing and research are key aspects of what human geographers do. Students im- prove writing through proposing and conducting self- directed research projects and work with peers and faculty to come with a specific 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 properly cite and incorpo- rate academic sources. culminating final paper on topic of choice. Weekly class workshops offer oppor- tunity to exchange work with peers, giving useful feed- back and opportunity to learn how to offer feedback and how to incorporate feedback into their work. 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 facilita- tors. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepara- tion 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 facilita- tors. Individual study in regularly scheduled meetings with faculty mentor to finalize course proposals, consult 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. Limited to junior/senior USIE facilitators. Indi- vidual study in regularly scheduled meetings with fac-
ulent 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.

191. Variable Topics Research Seminars: Geography. (4) Seminar, three hours. Research seminars on selected topics in geography. Some sections may require prior approval from instructor through 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.

194. Research Group Seminars: Geography. (2) Seminar, two hours. Research group meeting, 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 member. May meet concurrently with graduate research seminar. May be repeated for credit with topic change. P/NP grading.

C194A. Research Group Seminars: Issues in Biophysical Geography. (1) Seminar, one hour. Designed for undergraduate students who are part of research group. Bimonthly seminar to discuss current research in biophysical geography. Topics vary from year to year. May be repeated for credit. Concurrently scheduled with course C299BA, P/NP grading.

195. Community or Corporate Internships in Geography. (4) Tutorial, four hours. Limited to juniors/seminors. 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 periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty arranged. P/NP grading.

198A–198B. Honors Research in Geography I, II. (4–8) Tutorial, to be arranged. Preparation: 3.25 grade-point average overall, at least five upper-division units of related study, and instructor's consent. Honors seminar, three hours; discussion, one hour; reading period, one hour. Designed for graduate students. May be repeated for credit. Individual contract with supervisor required. Letter grading.

200A. History and Structure of Modern Geography. (4) Lecture, five hours. Evolution of the 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

201. 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 methodologies available to and implemented by geographers to enable students to evaluate geographic literature critically. S/U or letter grading.

202. Qualitative Methods and Methodology. (4) Seminar, three hours; laboratory, two hours. Examination of definition and use of qualitative methodologies 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 aspects of conducting qualitative research. S/U or letter grading.

204. Statistical Methods for Geographic Research. (4) Lecture, three hours; laboratory, two hours. Requirements: course M171. Use of linear models, discriminant functions, and factor analysis to analyze problems in geography. S/U or letter grading.


206. Introduction to Biophysical Modeling of Land Surface Processes and Land/Atmosphere Interactions. (4) Same as Atmospheric and Oceanic Sciences M206. Lecture, two hours; laboratory, one hour; reading period, one hour. Designed for graduate students. Presentation of introductory knowledge for graduate students to understand nature, principles, and scope of biophysical modeling of land surface processes, including land-cover model, radiation, heat and CO2 fluxes transfer, and satellite data application. Laboratory sessions included. S/U or letter grading.

Geospatial Information Systems

208. Geographic Data Visualization and Analysis. (4) Lecture, three hours; laboratory, two hours. Requirements: course 168, Statistics 12. Development of broad base of knowledge and set of skills that foster conduct of high-quality geographic data analysis. S/U or letter grading.

211. Remote Sensing of Environment. (4) Laboratory, three hours; independent study, two hours. Requirements: course 167. Study of aerial photographs and other remote sensing images as tools for geographical research. Analysis of remote sensing data using various modeling and interpretation of interrelationships of individual features in their physical and cultural complex. S/U or letter grading.

Remote Sensing

212. Physical, Mathematical, and Computational Basis of Remote Sensing. (4) Lecture, three hours; laboratory, two hours. Requisites: courses 169, 172. Intensive review and analysis of fundamental physics, mathematics, and computational science that underlie modern remote sensing and application of this knowledge to modern geographical problems. May be repeated for credit with topic change. S/U or letter grading.

214. Advanced Projects in Geographic Information Systems (GIS)/Remote Sensing. (4) Lecture, one hour; laboratory, three hours. Recommended requisites: course 169 or 170 or Earth, Planetary, and Space Sciences M150. Fundamentals of image processing package expected. Individualized research projects conducted on UNIX platforms within structured course environment. All aspects of modest but original project, including data acquisition, data analysis, and interpretation of results and presentation in publication-style format. 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 geographic research. May be repeated for credit with instructor change. S/U or letter grading.


218. Advanced Medical Geography. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Requisites: course M118. Exploration of selected topics in medical geography and intense review of recent literature. S/U or letter grading.

Human Geography

M224. 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.

M229A. Development Theory. (4) Same as Urban Planning M234A. Lecture, three hours. Review of theories of development and social 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 of theoretical writings and case studies, of complexity and diversity of developing countries. Emphasis on linkages between policy and rural and urban impacts. Gives students important background. S/U or letter grading.

M229B. Ecological Issues in Planning. (4) Same as Urban Planning M234B. Lecture, three hours. Recommended preparation: Urban Planning M229B, 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 Muirist model of living off of untrammeled nature, current set-aside for spiritual and scientific contemplation of nature; this approach used in environmental policy and as key idea in conservation and fragment biology. At core of conservation and environmental planning is interaction of these competing models and many reasons to be skeptical of both in 21st century. Letter grading.

M229C. 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, management, involvement of state, corporations, and local groups, and environmental and social impact of its development. Letter grading.

M230A. Theories of Regional Economic Development I. (4) Same as Public Policy M240 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, processes of regional growth and decline, reasons for different levels of economic development, relations between more and less developed regions. Letter grading.

M230B. Globalization and Regional Development. (4) Same as Urban Planning M236B. Lecture, three hours. Requisites: course M230A. Application of theories of regional economic development, location, and trade learned in course M230A to contemporary process known as globalization. Examination of nature
and effects of globalization on development, employment, and social structure, along with implications for policy. 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 research in social/cultural geography, particularly around topics of gender, race, sexuality, subjects and spatiality of resistance, 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. Designed for graduate students. 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.

247. Advanced Topics in Cultural Geography. (4) Seminar, two hours; discussion, one hour; reading period, one hour. Requisite: course 133. Lectures and discussions around specific aspects of development of cultural landscape in different geographic environments. J or U grading.

248. Advanced Topics in Economic Geography. (4) Seminar, three hours; reading period, three hours. Designed for graduate students. Advanced study of economic theories and principles S/U or letter grading.

249. Advanced Population Geography. (4) Lecture, three hours; reading period, one hour; prerequisite: course 142. Study of population dynamics and migration, spatial variation in population composition, and population resource problems, diffusion, and epidemiology. S/U or letter grading.

250. Advanced Topics in Urban Geography. (4) Seminar, two hours; discussion, one hour; reading period, one hour. General study of hierarchy of urban places, including diffusion within urban hierarchy and theories to account for location and size distribution of cities. S/U or letter grading.

Physical Geography

255. Physical Basis of Geography. (4) Lecture, three hours; reading period, one hour. Critical evaluation of formative influences, paradigm shifts, and present challenges of physical geography, illustrated from historical developments and changing research frontiers in geomorphology, climatology, oceanography, hydrology, and meteorology. S/U or letter grading.

256. Regional Climate and Terrestrial Surface Processes. (4) Seminar, three hours. Designed for graduate students. Physical concepts and basic principles of land-surface interactions. Emphasis on understanding of topics in terms of regional and global perspective and implications. Human activities cause changes in land cover, which in turn affect regional climate. Some regions, in particular, appear to be hot spots. Regions to be studied: detail. S/U or letter grading.

Geography / 501

257. Land Degradation. (4) Seminar, three hours. Discussion on impact of human activities and institutions on terrestrial ecosystems and goods and services they provide. Topics vary from year to year. May be repeated for credit with topic change. S/U or letter grading.

258. Human Security and Environmental Change. (4) Seminar, three hours. Discussion of impact of environmental change on food, water, and physical security of human populations and societies’ adaptations to environmental change. Topics vary from year to year. S/U or letter grading.

260. Evolution, Ecology, Environmentalism, and Roots of Modern American Geography. (4) Seminar, three hours; prerequisite: permission of instructor. Discussion of how contemporaneous development of modern concepts of evolution, ecology, and environmentalism influenced, and were influenced by, development of modern geography as academic discipline. S/U or letter grading.

M265. Environments: Climate Dimensions and Politics, Past, Present, Future. (4) Lecture, three hours; discussion, one hour. Review of environmental theories and their practices in dynamic U.S. and international contexts. Issues of climate change, scenario planning, and matrix ecology and its implications in both urban and rural settings. Exploration of problems of human adjustments to internationalization (or international impacts) of environmental practices as part of both green and black economies. What does integrated environmental planning look like in this century? Letter grades.


271. Seminar: Climatology. (4) Seminar, three hours; reading period, one hour. Requisite: course 280. Selected topics. May be repeated for credit. S/U or letter grading.

272. Seminar: Biogeography. (4) Seminar, three hours; reading period, two hours. Requisite: course 281. Related research projects growing out of course 281. May be repeated for credit. S/U or letter grading.

274. Seminar: Humid Tropics. (4) Seminar, three hours; reading period, three hours. Selected topics. Biophysical and cultural complex of humid tropics, with emphasis on problems related to human settlement and livelihood. May be repeated for credit. S/U or letter grading.

277. Coastal Geography. (4) Seminar, three hours. Discussion of various coastal topics from biophysical, ecological, and human perspectives. Content may vary from year to year. May be repeated for credit. S/U or letter grading.

Physical Geography Advanced

280. Advanced Climatology. (4) Lecture, three hours; laboratory, one hour; prerequisite: course 280. First year of calculus and acquaintance with Fortran or equivalent computer language. Introduction to tools and concepts of environmental physics of relevance to natural and man-made landscapes. Such basic intellectual, mathematical, and computer programming tools are of special concern to physical geographers, ecologists, and architects. S/U or letter grading.

281. Advanced Topics in Biogeography. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Requisites: courses 108, and 110 or 116. Extensive review and analysis of physical and cultural factors influencing plant distributions. S/U or letter grading.

285. Advanced Topics in Geomorphology. (4) Lecture, two hours; discussion, one hour; reading period, eight hours. Preparation: two courses from 101, 105, M107. Requisite: course 100. Analysis of geomorphic theories since scientific revolution, with emphasis on complex patterns, uniformitarianism, isostasy and eustasy, evolution and cyclicity, thermodynamics and mechanics, quantification, and current paradigms. View of each theme in its contemporary milieu. S/U or letter grading.

Regional Geography

290. South America. (4) Seminar, three hours; reading period, two hours. Introduction to main issues in geography of South America, with focus mainly on cultural/historical/geographical perspectives on national period; themes and topics can be adapted to individual interests. S/U or letter grading.

291. Geography of Contemporary China. (4) Seminar, three hours; reading period, two hours. Designed for graduate students. May be repeated for credit. S/U or letter grading.

298. Advanced Regional Geography: Selected Regions. (4) Lecture; three hours; discussion, one hour. Preparation: appropriate upper-division regional course. Lecture series devoted to one specific region at discretion of instructor. May be repeated for credit. S/U or letter grading.

Required Colloquia


299B. Research Group Seminars: Issues in Biophysical Geography. (1) Seminar, one hour. Biweekly seminar to discuss current research in biophysical geography. Topics vary from year to year. May be repeated for credit. Concurrently scheduled with course C194A. S/U grading.

299C. Cultural Geography Methods Workshop. (1) Seminar, two hours. Biweekly forum for presentation and discussion of new concepts, theories, and methods at juncture of geography, humanities, and environmental study. Principal focus on landscape, but scope of cultural study within geography also embraced. S/U grading.

299D. Political Geography Working Group. (1) Seminar, two hours. Limited to graduate students. Biweekly forum for presentation and discussion of new concepts, theories, and methods at juncture of geography, humanities, and environmental study. Principal focus on landscape, but scope of cultural study within geography also embraced. S/U grading.

Special Studies

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship personnel approval. May not be applied toward teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty members responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

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.

596. Directed Individual Study or Research. (2 to 6) Tutorial, to be arranged. May be repeated for credit. S/U grading.

597. Preparation for PhD Qualifying Examinations. (2 to 6) Tutorial, to be arranged. Independent study. May be repeated for credit. S/U grading.


---

**GERMAN**

See European Languages and Transcultural Studies

**GERONTOLOGY**

Interdisciplinary Minor

Meyer and Renee Luskin School of Public Affairs

3343 Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656

Gerontology
310-825-7388

E-mail contact

Lené F. Levy-Storms, MPH, PhD, Co-Chair

David B. Reuben, MD, Co-Chair

Faculty Committee

Michael R. Irwin, MD (Psychiatry and Biobehavioral Sciences, Psychology)

Lené F. Levy-Storms, PhD, MPH (Social Welfare)

David B. Reuben, MD (Medicine)

Theodore F. Robles, PhD (Psychology)

Gary W. Small, MD (Psychiatry and Biobehavioral Sciences)

Fernando M. Torres-Gil, PhD (Public Policy, Social Welfare)

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.

**Undergraduate Minor**

**Gerontology Minor**

**Admission**

To enter the Gerontology minor, students must have an overall grade-point average of 2.0 or better and a grade of B or better in Gerontology M108.

**The Minor**

Required Undergraduate Courses (28 to 32 units): (1) Gerontology M108, (2) four courses from Gerontology M104C, M104D, M119O, M119X, M142X, M150, M165, Psychology 124C, 150, (3) two courses from Gerontology 195CE, 199.

Students who have completed Clusters B0A with a grade of B or better, and have an overall grade-point average of 2.0 or better in Public Affairs M101 and M102 do not need to take Gerontology M108. Successful completion of this cluster sequence (Clusters B0A, B08X, B0CX) counts for CM108 and one elective course.

**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.

**Gerontology**

**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**

M104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) (same as Chicana/o and Central American Studies M106B, Gender Studies M104C, Public Affairs M131, 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.

M104D. Public Policy and Aging. (4) (same as Social Welfare M104D) Lecture, four hours. Examination of theoretical models and concepts of aging process, with application to aging policy. Analysis of decision-making processes that affect aging policy. 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 Social Welfare 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.

M108. Biomedical, Social, and Policy Frontiers in Human Aging (6) (same as Public Affairs 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 incorporate 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 individuals 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 maximally utilized 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. Designed for juniors/seniors. Biologic 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 males and females 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. (4) (Formerly numbered M142SL) (Same as Public Affairs M123XP and Social Welfare M142XP) 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 with the 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 psycho-
logical, 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 does U.S. respond over time to various needs and aspirations of people with disabilities, young and old? What demands have been made over time by disability advocates? How has government addressed demands of advocates for various disability populations? 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 repeated 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.

195CE. Community or Corporate Internships in Gerontology. (4) Tutorial, one hour; internship approved community setting, eight hours. Requisites: course M108, or GE Clusters 80A and 80B. Limited to juniors/seniors. Internship in applications of gerontology in supervised setting in community agency or business coordinated by Center for Community Learning. Students meet on regular basis with internship coordinator and must submit weekly writing assignments and a final paper at end of term. Eight units of 195CE (or 199) are required for successful completion of Gerontology minor. Individual contract with supervising placement sponsor required. Information and contracts may be obtained from Gerontology Advising Office, (310) 206-8966, paul@spa.ucla.edu. Letter grading.

199. Directed Research or Senior Project in Gerontology. (4) Tutorial, to be arranged. Requisites: course M108, or GE Clusters 80A and 80B. 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
10256 Bunche Hall
Box 951487
Los Angeles, CA 90095-1487

Global Health
310-206-6571
Minor e-mail
Michael A. Rodriguez, MD, MPH, Chair

Faculty Committee
Victor Agadjanian, PhD (Sociology)
David H. Gere, PhD (World Arts and Cultures/ Dance)
Ippolitos A. Kalofonos, MD, PhD (Psychiatry and Biobehavioral Sciences)
Michael F. Lofchie, PhD (Political Science)
Anne W. Rimoin, PhD (Epidemiology)
Michael A. Rodriguez, MD, MPH (Community Health Sciences, Family Medicine)

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 biological 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 and Environmental Engineering 58XP, Clusters 80A, 80BX, 80CW, Community Health Sciences 91, Global Studies 1, History 3D, Honors Collegium 1, 14, 26, International and Area Studies 1, Molecular, Cell, and Developmental Biology 60, 70, 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.


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. Stu-
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. May be repeated with topic and/or location change. Offered in summer only. 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. 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.


Global Jazz Studies

Interdepartmental Program
Herb Alpert School of Music

2520 Schoenberg Music Building
Box 351657
Los Angeles, CA 90095-1657

Global Jazz Studies

310-825-8381

Steven J. Loza, PhD, Chair

Faculty

Faculty Committee

Terence O. Blanchard (Music)
Robin D.G. Kelley, PhD (African American Studies, History)
Cheryl L. Keena, 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 (Kenny Burrell Professor of Jazz Studies)
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
Cecil Alexander, MM
Justo Almario, BA
Duane C. Benjamin
Clayton Cameron, BM
Paul J. De Castro, DMA
Charles A. Harrison, MM
Lorca B. Hart, BFA
Tamir Hendelman, BM
Wolf Marshall, BA
Hitomi M. Oba, MA
Daniel A. Rosenboom, DMA
Ottmaro Ruiz, MFA
Luciana Souza, MM

Adjunct Professors
Mark F. Turner, BM
Michele A. Weir, MA

Adjunct Associate Professors
Roberto Miranda, MM
Barbara Morrison, AA
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 advance students’ skills individually and in small combos and larger ensembles; (2) musicianship 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.

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 musical 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
- Interrogation of the concerns of jazz as a comprehensive practice, including its capacity to transform the musical, political, and socioeconomic world it engages

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.

Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Orientation or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music 3, M6A, M6B, M6C). Examination results may require enrollment in Music 3 as a prerequisite to course
M6A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination.

Required: Ethnomusicology 20B or 20C (5 units), 4 units from 91E and/or 91P; 4 units from 68A through 68D, 8A through 8C, or 91A through 91Z (except 91E and 91P); Global Jazz Studies M12A, M12B (10 units), 12 units from 71A through 71L (students must enroll in a studio each quarter); and Music M6A, M6B, M6C (6 units).

Policies
Each course must be completed with a grade of C or better.

Transfer Students
Transfer applicants to the Global Jazz Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one to two years of jazz studio instruction (equivalent to Global Jazz Studies 71A through 71L) and one year of musicianship (equivalent to Ethnomusicology M6A, M6B, M6C).

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: 72 units from the areas below.

Performance (24 units)—12 units of studio coursework from Global Jazz Studies 171A through 171L, 4 units of small jazz combo (Global Jazz Studies 175), 8 units of large jazz ensemble (Global Jazz Studies 176A through 176G). Students must enroll in a studio class and at least one combo or ensemble each quarter.


Scholarly foundations (20 units)—Global Jazz Studies 101, 125; one course (at least 4 units) selected from each of the following three subject areas: African American Studies 108, M150D, M158C, Global Jazz Studies M109, M119, M130, M131, 165, 188, 199, Music Industry 102, 104A, 107A, 115.

Capstone seminar and project (4 units)—Global Jazz Studies 186A, 186B.

Policies
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

M12A-M12B. African American Musical Heritage. (5–5) (Same as African American Studies M12A-M12B and Ethnomusicology M12A-M12B.) Lecture, four hours; discussion, one hour. P/NP or letter grading. M12A. Sociocultural history and survey of African American music covering Africa and its impact on America; music of 17th through 19th centuries; minstrelsy and its impact on representation of blacks in film, television, and theater; religious music, including hymns, spirituals, and gospel; black music of Caribbean and Central and South America; and music of black Los Angeles. M12B. Sociocultural history and survey of African American music covering blues, pre-1947 jazz styles, music repertoire, radio, and jazz clubs and how they contributed to musical performance. Students critically engage musical literacies and notion of social contract that forms basis of musical notation. Drawing from American folk music 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.

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 influential bodies of work produced in U.S. Covers many contributions of other artists who worked with Ellington, such as composer Billy Strayhorn and musicians Johnny Hodges, Cootie Williams, and Mercer Ellington. P/NP grading.

M119. Cultural History of Rap. (5) (Same as African American Studies M117 and Ethnomusicology M119.) 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.

121A-121B. Jazz Styles and Analysis, (4-4-4) (Formerly numbered Ethnomusicology C122A-C122B-C122C.) Lecture, four hours; outside study, eight hours. Limited to Global Jazz Studies majors or consent of instructor. In-depth analysis of jazz styles and repertoire intended for students with music background. Letter grading. 121A. Early Jazz to Swing Era; 121B. Bebop to Avant-garde; 121C. Jazz since 1960.

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, transcription, woodwinds, doubled reeds, 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 ensemble. Instructor approval of arrangement to be read by UCLA Jazz Orchestra. P/NP or letter grading.

127A-127B-127C. Jazz Keyboard Harmony I, II, III. (2–2–2) (Formerly numbered Ethnomusicology 127A-127B-127C.) Laboratory, two hours; outside study, four hours. Course 127A with grade of C or better is requisite to 127B; course 127B with grade of C or better is requisite to 127C. Study of jazz harmony through use of piano keyboard. Scales, modes, functional harmony.

M128. Exploration in Rhythms. (2) (Same as Ethnomusicology M128.) Lecture, two hours; outside study, four hours. Preparation: ability to read melodic or rhythmic notation. In-depth exploration of musical time and rhythm in 20th- and 21st-century classical, jazz, world, and popular music. Concepts explored include meter, pulse, rhythmic cycles, hematic structure, rhythmic notation, etc. Letter grading.

129A-129B-129C. Jazz Theory and improvisation I, II, III. (2–2–2) (Formerly numbered Ethnomusicology 129A-129B-129C.) Lecture, four hours; outside study, eight hours. Elements of jazz theory and improvisation. Letter grading. 129A. Basic jazz harmonic constructions, as well as melodic, rhythmic, and harmonic concepts, and how to apply those elements to personal efforts in improvisations. 129B. Requisite: course 129A with grade of C or better. Medium-level
jazz harmonic constructions. 129C, Requisite: course 129B with grade of C or better. Advanced-level jazz harmonic constructions.

M130. Culture of Jazz Aesthetics. (4) [Same as Anthropology M158 and Ethnomusicology M130.] Lecture, three hours. Recommended requisite: Anthropology 3 or 4 or Ethnomusicology 20A or 20B or 20C. 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 combined with those interested in jazz as cultural tradition. P/NP or letter grading.

M131. Development of Latin Jazz. (4) [Same as Ethnomusicology M131 and Music M131.] Lecture, four hours; discussion, one hour. Survey of historical and stylistic development of musical style referred to today as Latin jazz. P/NP or letter grading.

165. Selected Topics in Composition. (4) [Formerly numbered Ethnomusicology C165.] Lecture, four hours; outside study, eight hours. Preparation: experience and commitment to composition. Evaluation of important musical concepts and approaches to enable students to develop greater compositional technique and understanding. Ways composers of jazz, European composers, and other musical genres have successfully approached use of extended compositional forms. Examination of way in which world music traditions have interfaced 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. Letter grading.

166. Global Jazz Studies Advanced Composition Studio. (2) Studio, one hour; outside study, five hours. Limited to junior/senior Global Jazz Studies majors. One-on-one composition lessons. Focus on technologically informed, 21st-century tendencies towards fluidity of mixing numerous compositional genres and techniques with breadth of cultural hybridity. Students create new musical compositions based on their extrapolations from series of analyses covered during quarter. May be repeated for credit. P/NP or letter grading.

171A-171I. Instruction in Advanced Jazz Performance. (2 each) [Formerly numbered Ethnomusicology 171AF-171IF] Studio, one hour of individual instruction; outside study, seven hours. Limited to junior/senior Global Jazz Studies majors. Study of jazz repertoire and specific techniques of the specific instrument or 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.

175. Jazz Combo. (2) [Formerly numbered Ethnomusicology 177T.] Activity, two hours; laboratory, four hours. Preparation: audition. Exploration of composition and improvisation more intensely in smaller jazz combination groups of four to eight musicians. May be repeated for maximum of 12 units. Letter grading.

176A-176G. Large Jazz Ensembles. (2 each) Activity, two hours; outside practice, four hours. Preparation: audition. Enrollment by consent of instructor. Larger groups of students play in large ensembles, bands, or orchestras. May be repeated for credit without limitation. Letter grading. 176A, Contemporary Jazz Ensemble. (Formerly numbered Ethnomusicology 161T.) 176B. Charles Mingus Ensemble. (Formerly numbered 161T.1) 176C. UCLA Jazz Orchestra; 176D. UCLA Afro Latin Jazz Orchestra. Activity, three hours; outside practice, three hours; 176E. Ellingtonia Jazz Orchestra; 176F. World Jazz and Inter-cultural Improvisation Ensemble; 176G. Afro-Cuban Ensemble; 176H, Commercial Music Studio Ensem.
pleting the capstone, students should demonstrate an appropriate mastery of a specialized area of global studies and a critical understanding of current scholarly concerns, literatures, and debates. They should also be able to identify and analyze primary sources and use those sources and appropriate scholarly literature to design and carry out a research project.

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

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 non-language 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.

Premajor
Incoming first-year and transfer students may be admitted as Global Studies premajors on acceptance to UCLA. Premajor students must apply for the major at the end of fall quarter of their junior year; they are not automatically accepted into the major.

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 2DW, 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 10, 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.

Policies
A minimum grade-point average of 3.25 is required in these courses.

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.

The Major
Required: Global Studies 102, 103, 104, and five elective courses, two from each of the following categories:

- Culture and Society—Anthropology 146, M148, Asian American Studies M130C, 170, M172A, 172C, 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, 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 four capstone courses—Global Studies 191 and 194 in fall quarter, followed by 199A and 199B. Courses 199A and 199B culminate in a capstone senior thesis of 35 to 50 pages.

Honors Program
To qualify for departmental honors, students must (1) have a grade-point average of 3.5 or better in upper-division courses in the major, (2) have a cumulative GPA of 3.25 or better, and (3) complete Global Studies 19B with a grade of A— or better. 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 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 characterize the contemporary world. The minor is designed to complement and enrich studies in their major.

Admission
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 two of 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 2DW, 4CW or 4DW, Ethnomusicology 25, 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.
1. Introduction to Globalization. (6) 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 by respective UN committees. Particular emphasis on public speaking and cooperative debate. May be repeated for credit with permission.

12. Los Angeles as Global City: Exporter and Importer of Global Culture. (4) Lecture, three hours; discussion, one hour. Study of phenomenon of globalization through prominent case of Los Angeles. Focus on how city produces global culture, including filmed entertainment and culture of celebrity; and how it absorbs cultural inputs from world over. Emphasis on interactive relationship between export and import of global culture. City's distinct cultural milieu and its reactions to the vulnerability as cultural capital depends on its ability to accommodate diverse 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). 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. Questioning of whether Hollywood can be more effective as America’s cultural ambassador. P/NP or letter grading.

145. Rethinking Global Capitalism: Race, Class, Gender, History. (4) Lecture, three hours. Examination of one of many international courses related to global studies. May be repeated for credit with topic change. P/NP or letter grading.

188A-188B. Special Studies in Global Studies. (4–12) Seminar, three hours. Program-sponsored experimental or temporary courses, such as those taught by visitor or visiting faculty members. May be repeated for credit with topic change. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to students in College Honors Program. 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 credit. P/NP or letter grading.

189H. Honors Contracts. (1) Tutorial, three hours. Limited to students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual honors contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

190. Globalization in Context. (5) Lecture, three hours; discussion, one hour (when required). Requisite: course 1. Investigation of political aspects of globalization and its effect on bureaucracy, management, and resolution of disputes, violence, and conflict. Review of international and regional institutions and their interaction with contemporary issues, which may include terrorism, human rights, climate change, and cybersecurity. Letter grading.

190A. Globalization: Markets and Resources. (5) Formerly numbered 100A.) Lecture, three hours; discussion, one hour. Requisite: course 1. Examination of how domestic and international politics determine how global economy is governed. Topics include monetary and capital policy, trade, international investment, and migratory flows. Letter grading.

190B. Globalization: Culture and Society. (5) Formerly numbered 100B.) Lecture, three hours; discussion, one hour. Requisite: course 1. Exploration of globalization of culture and society and its effect on culture, management, and resolution of disputes, violence, and conflict. Review of international and regional institutions and their interactions with contemporary issues, which may include terrorism, human rights, climate change, and cybersecurity. Letter grading.

190E. Globalization: Governance and Conflict. (5) Lecture, three hours; discussion, one hour. Requisite: course 1. Exploration of globalization of governance and its effect on bureaucracy, management, and resolution of disputes, violence, and conflict. Review of international and regional institutions and their interaction with contemporary issues, which may include terrorism, human rights, climate change, and cybersecurity. Letter grading.

190F. Globalization: Markets and Resources. (5) Formerly numbered 100F.) Lecture, three hours; discussion, one hour. Requisite: course 1. Investigation of political aspects of globalization and its effect on bureaucracy, management, and resolution of disputes, violence, and conflict. Review of international and regional institutions and their interaction with contemporary issues, which may include terrorism, human rights, climate change, and cybersecurity. Letter grading.

190G. Globalization: Culture and Society. (5) Formerly numbered 100G.) Lecture, three hours; discussion, one hour. Requisite: course 1. Exploration of globalization of culture and society and its effect on culture, management, and resolution of disputes, violence, and conflict. Review of international and regional institutions and their interactions with contemporary issues, which may include terrorism, human rights, climate change, and cybersecurity. Letter grading.

192. International Diplomacy and Foreign Affairs. (2) Seminar, two hours; practicum, to be arranged. Limited to juniors/seniors. Training and supervised research or other scholarly work), three hours. Enforced requisites: courses 110A, 110B. Limited to senior Global Studies majors. Organized on topics with readings, discussions, papers, and development of culminating project. May not be repeated for credit. Letter grading.

192. Undergraduate Practicum in Global Studies. (2) Seminar, two hours; practicum, to be arranged. Limited to juniors/seniors. Training and supervised research or other scholarly work), three hours. Enforced requisites: courses 110A, 110B. Limited to senior Global Studies majors. Organized on topics with readings, discussions, papers, and development of culminating project. May not be repeated for credit. Letter grading.

199. Directed Research in Global Studies. (4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. May be applied toward requirements via petition. 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.

---

**Graduate Student Professional Development**

**Graduate Division**

1255 Murphy Hall
Box 952801
Los Angeles, CA 90095-2801

Graduate Division

310-825-3819

Graduate Academic Services e-mail

**Overview**

The Graduate Division sponsors university-wide courses for the professional development of graduate students.

**Graduate Student Professional Development**

**Graduate Courses**

495CE. Supervised Preparation for Community-Engaged Teaching. (4) 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.

496A. Introduction to Evidence-Based Undergraduate Teaching. (2) Seminar, 90 minutes. Design for graduate students and postdoctoral scholars. Exploration and practice of fundamental principles of learning, backward design, assessment, active learning, and inclusive teaching. Lesson plan design with feedback. Meets associate level of CIRTL certification requirement. May be repeated once for credit. S/U grading.

496B. Teaching as Research. (2) Seminar, 90 minutes. Requisite: course 496A or equivalent. Students become reflective practitioners by applying systematic and reflective use of research methods to develop teaching practices in order to advance learning experiences and outcomes of students and teachers. Students produce proposal for TAR project. May be repeated once for credit. S/U grading.

496C. Implementing and Communicating Teaching as Research Project. (2 to 4) Tutorial, three to six hours; research group meeting, two to four hours. Requisite: course 496B. Implementation, data analysis, and communication of results of TAR project with feedback and approval of faculty-adviser mentor and peer support in learning community. Meets practitioner level of CIRTL certification requirement. S/U grading.

---

**HEAD AND NECK SURGERY**

David Geffen School of Medicine
62-132 Center for Health Sciences
Box 951624
Los Angeles, CA 90095-1624

**Head and Neck Surgery**

310-206-3631

Maie St. John, MD, PhD, Chair

**Overview**

The Department of Head and Neck Surgery academic programs consist of a nationally recognized residency program, medical school education, prestigious fellowships, and ongoing continuing medical education. A critical success factor in these academic efforts is the high level of clinical expertise demonstrated by all faculty members, which attracts outstanding applicants. Additionally, department faculty members have an active commitment to basic science and clinical research as an integral component of the program of instruction. These tenets not only ensure quality at every educational level, but also provide a superior milieu for the development of teacher-investigators.

The residency program is incorporated into the department patient care and research activities in six affiliated medical centers and exposes residents to all of the subspecialties during their training. Medical student teaching is a combined effort by faculty members, fellows, and residents, consisting of lectures, didactic learning, and hands-on experience in clinical and research settings. The department’s one-and two-year fellowships are long-standing and sought after by graduate from the best residency programs in the country. Through the continuation of exceptional educational programs, the department accomplishes its commitment to maintain excellence in patient care, to achieve academically, and to advance research in the field.

For more details on the Department of Head and Neck Surgery and courses offered, see the department website.

---

**Health Policy and Management**

Jonathan and Karin Fielding School of Public Health
31-269 Center for Health Sciences
Box 951772
Los Angeles, CA 90095-1772

**Health Policy and Management**

310-825-2594

**Department e-mail**

Jack Needleman, PhD, Chair
Thomas H. Rice, PhD, Vice Chair

**Faculty Roster**

**Professors**

Kathryn A. Atchison, DDS, MPH
Roshan Bastani, PhD
Arturo Vargas Bustamante, MPP, PhD
Paul J. Chung, MD, MS
Warren S. Comulada, MPH, DrPH, in Residence
Daniel Eisenberg, PhD
Joann G. Elmore, MD, MPH
Jose J. Escarce, MD, PhD
Susan L. Ettner, PhD
Jonathan E. Fielding, MD, PhD, in Residence
Patricia A. Ganz, MD
Lillian Gelberg, MD, MSPH
Beth A. Glenn-Mallouk, PhD
Neal Halfon, MD, MPH
David E. Hayes-Bautista, PhD
Ronald D. Hays, PhD
S. Jody Heymann, MD, PhD
Felicia S. Hodge, DrPH
Moira Inkelas, MPH, PhD
Clifford Y. Ko, MD
Gerald F. Kominski, PhD
Mark S. Litwin, MD, MPH
James A. Macinko, PhD
Carol M. Mangione, MD, MSHS
Vickie M. Mays, MSPH, PhD
Jeanne Miranda, MD, in Residence
Jack Needleman, PhD (Fred W. and Pamela K. Wasserman Professor of Health Policy and Management)
Michael Ong, MD, PhD, in Residence
Ninez A. Ponce, MMP, PhD
Naderedd Pourat, MSPH, PhD, in Residence
Thomas H. Rice, PhD
Linda Rosenstock, MD, MPH
Brennan M. Spiegel, MD, MSHS, in Residence
Kenneth B. Wells, MD, MPH, in Residence
Frederick J. Zimmerman, PhD

**Professors Emeriti**

Emily K. Abel, PhD
Ronald M. Andersen, PhD
Barbara Berman, PhD
William S. Comanor, PhD
Diana W. Hilberman, DrPH
Robert M. Kaplan, PhD

**Head and Neck Surgery faculty information** is available from the department.
formulation, health planning, organization, and management. For information on the MPH and concurrent degree programs, see Public Health SchoolWide Programs.

For those interested in careers in research and teaching, the department offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Health Policy and Management. These programs maintain close ties with related activities in the schools of Dentistry and Medicine, including the UCLA National Clinician Scholars Program.

Graduate Majors

Executive Master of Public Health

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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.

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

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 (MPH), includes training in various aspects of health administration such as policy formulation, health planning, organization, and management. For information on the MPH and concurrent degree programs, see Public Health SchoolWide Programs.

For those interested in careers in research and teaching, the department offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Health Policy and Management. These programs maintain close ties with related activities in the schools of Dentistry and Medicine, including the UCLA National Clinician Scholars Program.

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.

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Healthcare Administration

Graduate Courses


411. Microeconomic Theory for Health Sector. (4) Lecture, three hours; discussion, one hour. Microeconomic aspects of health-care system, including health manpower substitution, choice of efficient modes of treatment, market efficiency, and competition. 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 error, significance and confidence levels, and sample size. Letter grading.

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 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. Health Care Systems and Health Policy. (4) Lecture, four hours; discussion, one hour. Structure and function of U.S. health care system, health care policy, and issues and forces shaping its future. P/NP or letter grading.


C121. Tobacco: Prevention, Use, and Public Policy. (4) Lecture, four hours. Designed for juniors/seniors. Study of tobacco use and its health consequences, including interplay of historical, biological, sociocultural, political, 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. Concurrently scheduled with course C221. Letter grading.

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

M168. Healthcare for American Indians. (4) Same as American Indian Studies M168.) Lecture, two hours; discussion, one hour. Identification of traditional health beliefs, health practices, and healthcare systems among 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. 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 creation of 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: 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with facilitator mentor to discuss USIE course content and syllabus. 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 required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A-200B. Health Systems Organization and Financing. (4–6) Lecture, three hours; discussion, one hour. Introduction to field of public health and health services management, with emphasis on health, prevention, and supportive systems at different stages of child life. Application of life course health development framework to understand health disparities and implications for policy and practice. Letter grading.

M204A–M204B–M204C. Seminars: Pharmaceutical Economics and Policy. (1–2) (Same as Economics M204L–M204M–M204N.) Seminar, three hours every other week. Emphasis on course M204L: Historical, biologiblological, sociocultural, political, and economic forces with knowledge, attitudes, and behavior choices of individuals. Introduction to prevention interventional association. Topics: efforts in U.S., and international trends in tobacco use. Concurrently scheduled with course C121. 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 data collection. Broad overview to conducting health services research, alternative research paradigms, building conceptual models of what students are trying to study, designing and testing measures, and direct data collection issues of survey and questionnaire design, sampling, community engagement, and ethical issues. Course 225A.

225B. Development of conceptual models for health services research, identification and use of secondary data sources, study design, and its operationalization through regression modeling.

225C. Research Methods for Improvement/Implementation Science. (4) Lecture, four hours. Enforced corequisite: course 215A or 215B. Design and implementation of studies of dynamic interventions, including improvement interventions, pragmatic clinical trials. Provides skills in research methods for improvement and implementation studies in clinical settings (including community-based settings) and health systems. Completion of spring quarter research projects that demonstrate student competence in design and implementation. Fundamentals in research design and methods for conducting rigorous inferential evaluation in health and implementation with emphasis on methods for generalizing results of improvement 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 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 to 4) (Formerly numbered 227B.) Seminar, two hours. Enforced corequisite: course 227A. Highly recommended: courses 227A and 227B. Emphasis on activities related to health services research. Review of articles in health services journals nominated 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 or health services as field. May be repeated for credit with topic change. Letter grading.

228A. 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 227A and 227B, or consent of department. Study of mixed methods research design and methods. Introduction to mixed methods research, with emphasis on its application to public health research. Equips students with skills to critique mixed methods research designs and to design mixed methods research investigations for health issue of interest. Study of different mixed methods research designs commonly used in public health and health
230A-230B. Health Economics: Low- and Middle-Income Countries’ Perspectives. (2-2) Seminar, two hours; discussion, two hours. Development of student thinking on how microeconomic theories help us understand determinants of health and behaviors of consumers and providers in health sector. Offers critical framework of health economics in improving health of populations. Health economics field provides public policy tools to evaluate distributional benefits and costs of health interventions and to assess extent market failures motivate role of governments in financing, organization, and delivery of health care. Emphasis on low- and middle-income country (LMIC) settings. In Progress (230A) and S/U or 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 providers, healthcare institutions, healthcare reform movements, public health activities, childbirth, and AIDS. S/U or letter grading.

232. Leadership Capstone Seminar. (4) Seminar, four hours; presentation of summer internship requirement. Designed for graduate students completing their master’s training in management health and health policy. Examination of leaders and leadership, how other organizations provide broad introduction to literature on skills, behaviors, and characteristics of organizational leaders. Relationship and importance of vision, values, change, strategy, and communication. Identification of characteristics of successful leaders. Students evaluate their own leadership style and identify opportunities to further develop their leadership abilities. Letter grading.

233. Health Services Organization and Management Theory. (4) Lecture, four hours. Preparation: two upper-division social sciences courses. Application of contemporary and integrated theories to systems that provide public healthcare services. Environmental characteristics, missions/goals, structure, and processes of health services organization. S/U or letter grading.

234. 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.


236. Health Services Organization and Management Theory. (4) Lecture, four hours. Preparation: two upper-division social sciences courses. Application of contemporary and integrated theories to systems that provide public healthcare services. Environmental characteristics, missions/goals, structure, and processes of health services organization. S/U or letter grading.

237. 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. Requisites: courses 200A and 200B, or M233. Techniques to assess broad spectrum of medical technologies: therapeutic and diagnostic tests and procedures, clinical practice patterns, public health and community health interventions. Demonstration of how decision analysis provides basic framework for conducting various economic evaluations. May be repeated for credit with topic change. Letter grading.

239B. Special Topics in Health Services: Advanced Topics in Decision Analysis and Cost-Effectiveness Analysis. (4) Lecture, four hours. Requisite: course 239A. How to conduct uncertainty analyses, understand methods used to construct quality-adjusted life years (QALYs), conduct Markov analyses, critically analyze large-scale published cost-effectiveness analyses (CEAs), effectively present strengths and limitations of published CEAs to peers, and use advanced features on TreeAge software to conduct and analyze CEA models, including Markov models. May be repeated for credit with topic change. Letter grading.

240. Global Health Institutions, Policies, and Systems. (4) Lecture, four hours. Introduction to global health, health system and policies from a theoretic 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, human resources and health IT. Through series of short assignments, students’ work culminates in final presentation that examines these major components of single topic in global health. S/U or letter grading.

241. Economics of Health Policy. (4) Lecture, four hours. Requisite: course M236 or doctoral standing. Second-level health economics course, with emphasis on health policy, 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 policy analysts 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 market failure and various policy options need 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.

242. 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 evidence for social, economic, 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 research and national and international advocacy. 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 devices/technologies, connectivity in wireless world, delivery modalities, and user experience/interface (UX/UI) design. Study teaches ways to apply new technology to facilitate traditional business operations. Students learn how to implement Telehealth interventions, understand its challenges, and optimize data visualization for decision making. S/U or letter grading.

249. Advanced Research Topics in Health Policy and Management. (2 to 4) Seminar, to be arranged. Limited to Public Health Graduate students. Students may be organized in special topics. Advanced study and analysis of current issues in policy and management. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit with topic change. S/U or letter grading.

249A-249Z. Special Topics in Health Services. (2 to 4 each) Hours to be arranged. Requisites for each offering announced in advance by department. Advanced seminars covering current issues and special topics in health policy, health financing, and organization and administration of health services. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change.

250. Project Management for Health-Care Organizations. (4) Lecture, four hours. Preparation: good grasp of social sciences; or approval of academic advisor. Emphasis on basic understanding of science of implementing innovations and evidence-based approaches in real-world practice settings. Includes exposure to terminology, conceptual frameworks, research designs and methods, and their appropriate applications across various practice settings and populations. Interactive class discussion and guest lectures by experts in implementation science. S/U or letter grading.

251. Population Health Approach to Autism Spectrum Disorder. (4) Seminar, four hours. Preparation: good grasp of social sciences; or approval of academic advisor. Emphasis on basic understanding of science of implementing innovations and evidence-based approaches in real-world practice settings. Includes exposure to terminology, conceptual frameworks, research designs and methods, and their appropriate applications across various practice settings and populations. Interactive class discussion and guest lectures by experts in implementation science. S/U or letter grading.

252. Healthcare Management. (4) (Same as Public Policy M252.) Lecture, three hours; discussion, two hours. Designed for graduate students. Analytical and managerial skills learned earlier to be applied to real-world problems with existing Medicare program and to develop specific options for reforming features of program to accommodate coming pressures generated by retirement of baby-boom generation. Letter grading.

253. Transferring Health System in U.S.: Where Have We Been, Where Are We Going, and How Can We Get There? (4) Seminar, four hours. Systematic examination of recent trends in health-care and policy, with focus on the process of innovation in U.S. health-care systems. Emphasis on strategies to transfer U.S. health-care system to produce substantially better results and for significantly lower expenditures. Inquiry assesses preconditions and infrastructure required to support transformation, and leading efforts underway in U.S. and globally. Students gain deeper understanding of current context, exposure to promising tools and approaches, and increased knowledge of key drivers of transformation. S/U or letter grading.

255. Obesity, Physical Activity, and Nutrition Seminar. (4) (Same as Community Health Sciences M255.) Seminar, three hours; discussion, one hour. Designed for graduate students. Review of major dietary and health guidelines. Emphasis on 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. Reading and research studies, presentation of work in progress, data group discussions, and directed individual research. Students engage in discussion and debate regarding current research, empirical challenges and emerging trends. S/U or letter grading.

256. World Health. (4) Lecture, four hours. Designed for graduate students. Overview of world health, with emphasis on healthcare outside U.S. Key areas in-
clude burden of infectious diseases, health economics, and impact of healthcare policy on healthcare delivery. Letter grading.

265. Challenges in Clinical Health Services Research, (4) Lecture, four hours. Requisites: courses 200A, 200B. Designed to prepare students for challenges in solving meaningful problems in health services research on clinical topics and populations. Topics include formulating appropriate questions, identifying sources, mechanism of conducting field studies, identifying funding sources, obtaining federal grants, and publishing findings. S/U or letter grading.

266A-266B. Community-Based Participatory Health Research: Methods and Applications. (4-4) Lecture, two hours; discussion, two hours. Limited to clinical scholars fellows. Mentoring of field experiences with introduction to critical issues in conducting research in community settings. Review of assignments, interventions, and evaluation designs for community settings and discussion of practical issues in partnering with communities. Letter grading.

M269. Healthcare Policy and Finance. (Same as Public Policy M269) Seminar, three hours; outside study, nine hours. Exploration of demand for health insurance, policies for public insurance (Medicaid and Medicare), uninsured, and health insurance reform. Examination of managed care on health and costs, consumer protection movement, and rise of competitive healthcare markets. Letter grading.

M274. Health Status and Health Behaviors of Racial and Ethnic Minority Populations. (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, analysis of international issues as well. S/U or letter grading.

280. Health Reform: Policy, Research, and Implementation Issues, (4) Seminar, three hours. Requisites: consent of instructor. Limited to second-year MPH and doctoral students. Analysis of components of major federal healthcare reform legislative initiative to identify important policy, research, and implementation issues. Application of principles of stakeholder analysis to understand how and why this legislation was constructed and how it passed Congress. Conduction of policy analyses of selected components through completion of written assignments. Examination of respective roles of federal and state government in implementing and administering various components. Identification of significant implementation and assessment challenges at federal and state levels and development of possible strategies for addressing those challenges. 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 requirements. Doctoral students should have completed at least one year of doctoral coursework. Focus on relationships among gender inequality, restrictive gender norms, and health. Examination of evidence pulled to illustrate how and why this legislation was constructed and how it passed Congress. Conduction of policy analyses of selected components through completion of written assignments. Examination of respective roles of federal and state government in implementing and administering various components. Identification of significant implementation and assessment challenges at federal and state levels and development of possible strategies for addressing those challenges. Letter grading.

290. Public Health Informatics. (4) Lecture, three hours. Preparation: general familiarity and understanding of basic health information technologies. Requisites: courses 200A, 200B. Introduction to ethical theories and critical ethical issues pertaining to healthcare policy and healthcare management. Research, writing, and discussion of various topics related to health and human rights to enhance professionalism, leadership, and systems thinking and improve student sensitivity to needs of patients, coworkers, and fiduciary sharehold- ers. How ethics are foundation of leadership. Letter grading.

294. American Political Institutions and Health Policy, (4) Lecture, three hours; discussion, one hour. To effectively participate in policy process as analyst, policy developer, or consumer, it is necessary to understand institutional and political context within which policy is made. Introduction to federal and state policy-making, with focus on health policy. Discussion of the roles of stakeholders, public, interest groups, and nature of issue space for health policy. Structure and process of political institutions at federal level, Congress, President, executive branch and administrative law. State responsibilities and federal/state relations. How analysis enters policy process with examination of roles of federal analytic agencies and private research and advocacy groups. Letter grading.

M287. Politics of Health Policy, (4) Same as Community Health Sciences M287 and Public Policy M266.) Lecture, three hours; discussion, one hour. Requisites: courses 200A and 200B, or Community Health Sciences 210. Examination of politics of health policy process through analysis of case studies such as environmental protection, pandemic preparedness and response, regulation of 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 current political efforts curm to the 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 point of view of system itself. Exploration of various types of technologies for their policy, economic, and organizational impact. S/U or letter grading.

289. Healthcare Disparities, (4) Seminar, three hours. Requisites: consent of instructor. Examination of what constitutes and explains disparity in health. Emphasis on understanding history of disparities in U.S. to understand current state 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 how disparities have changed over time and how they have been operationalized and to highlight methodology-related challenges of studying organizations in health care/public health. Letter grading.

M420. Children with Special Healthcare Needs: Systemic Perspectives. (Same as Community Health Sciences M420 and Social Welfare M280.) Lecture, three hours; fieldwork, one hour. Examination and evaluation of policies, principles, programs, and practices that must have equal access, and meet special needs of infants, children, and adolescents with developmental disabilities or chronic illnesses and their families. Letter grading.


423. Advanced Evaluation Theory and Methods for Health Services, (4) Lecture, four hours. Designed for departmental MS and PhD students. 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 advanced evaluation methods and 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 five to ten year 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) and evaluation design that have emerged (e.g., pragmatic and adaptive trials). 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 poverty-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 present in CBOs and organiza- tions effective in shaping maternal and child health programs and policies (or any population-level policies and programs). Leaders from CBOs in Los Angeles meet with students, comment on their practicum ex-

438. Issues and Problems of Local Health Administration. (4) Lecture, three hours. Preparation: one health services course. Requisites: course 100. Epidemiology 100. Overview of administrative issues currently faced by local health departments, including local health department and policy analysis and development of resources necessary 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, 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.

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 administration. Emphasis on 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. 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.

440B. Health Information Systems: Organization and Management. (4) Lecture, two hours; laboratory, three hours. Requisite: course 440A. Health and administrative research with 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.


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 criti-
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

Premajor
While students are completing the lower-division preparation for the major courses, they may be classified as History premajors.

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.

Preparation for the Major
Required: Six lower-division courses history courses as follows: two history survey courses selected from History 1A, 1B, 1C, 2B, 2C, 3A, 3B, 3C, 3D, M4, S, 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, 89, 89HC, 99).

Policies
Each course must be taken for a letter grade.

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 premajor 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.

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.


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.

Policies
Each course must be taken for a letter grade.

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.

Policies
At least three of the five courses must be taken in residence at UCLA.

A maximum of 4 units of special studies courses (199) approved by the adviser and a maximum of 4 units of capstone seminars (191) 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.

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 courses.

Required Lower-Division Courses (10 units):
Two courses from History 2B, 3A through 3D.

Required Upper-Division Courses (20 units):

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 191 (capstone research seminar); History 199 (individual independent study approved by department adviser); or an honors collegium 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.

History

Lower-Division Courses

1A. Introduction to Western Civilization: Ancient Civilizations, Prehistory to circa AD 843 (Honors).
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 instruction of new cultural forms. P/NP or letter grading.

1AH. Introduction to Western Civilization: Ancient Civilizations, Prehistory to circa AD 843 (Honors).
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. P/NP or letter grading.

1C. Introduction to Western Civilization: Century 1715 to Present. (5)
Lecture, three hours; discussion, one hour. Introduction to history of the West and its connections to rest of world after 1715, during period of sweeping political, social, and cultural tensions 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. Honors 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 and social power in the 19th and 20th centuries. Everyday ideas and practices about human nature, common sense, and community and relations of those practices to social thought, social engineering, and social science. Themes include development of social knowledges through public activities and discourses; how social knowledge differs in agrarian, cultural, mercantile, industrial, and information-based political economies; and how social science addresses these issues. P/NP or letter grading.

2C. Religion, Occult, and Science: Mystics, Heretics, and Witchcraft in Western Tradition, 1000 to 1600. (5)
Lecture, three hours; discussion, two hours. Specific aspects of elite and popular culture in medi eval and early modern Europe. Manner in which men and women sought to explain, order, and escape terror of their lives by embracing transcendental religious experiences and dreaming of apocalyptic and witchcraft. Examination of experiences of genesis of state, birth of a new science, and economic and social change. P/NP or letter grading.

3A-3B-3C. History of Science. (5-5-5)
Lecture, three hours; discussion, two hours. History majors may not apply these courses on science general education requirements. P/NP or letter grading.

3A. Renaissance to 1800. Survey of beginnings of physical sciences involving transformation from Aristotelian to Newtonian cosmology, mechanization of natural world, rise of experimental science, and origin of scientific societies. 3B. Enlightenment to 1900. In this period science became part of Enlightenment campaign for reason and of culture of an Industrial Revolution. New social science and evolutionary debates about science and religion demonstrate its rising intellectual and practical significance. 3C. 20th Century. Ranging from startling new physics of relativity and the quantum, and of nuclear weapons, to molecular reductionism in biology and campaigns for statistical objective, examination of involvement of science in technological, military, intellectual, and political changes of the 20th century.

3D. History of Modern Medicine. (5)
Lecture, three hours; discussion, two hours. Examination, through illuminated lectures and discussions, of primary sources, of five important themes in development of modern medicine: nature of diagnosis, emergence of surgery, epidemics, conception and treatment of illness, and use of medical technology. P/NP or letter grading.

4. Introduction to History of Religions. (5)
Lecture, three hours; discussion, two hours. Historical transformation of 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 sacred 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.

5. Holocaust: History and Memory. (5)
Lecture, three hours; discussion, two hours. Holocaust, murder of six million Jews by Germans in Nazi-occupied Europe during World War II, is one of crucial events of modern 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, anti-Semitism, and machinery of modern state. Consideration of debates about implementation of genocide, including significance of gender and sexuality, relationship between war and genocide, meanings of resistance and culpability, and political and philosophical implications of the 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, and political opponents of National Socialism. P/NP or letter grading.

6A. Colonial Latin America. (5)
Lecture, three hours; discussion, two hours. Colonial Latin America history from contact period to independence (1490s to 1820s), with emphasis on confluence of Native American, European, and African cultures in Latin America; issues of ethnicity and gender; development of colonial institutions and societies; and emergence of local and national identities. Readings focus on writings of Latin American men and women from the period studied. P/NP or letter grading.

6AH. Colonial Latin America (Honors). (5)
Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 6A. General introduction to Latin American history from contact period to independence (1490s to 1820s), with emphasis on confluence of Native American, European, and African cultures in Latin America; issues of ethnicity and gender; development of colonial institutions and societies; and emergence of local and national identities. Readings focus on writings of Latin American men and women from the period studied. P/NP or letter grading.

6B. 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., approached from bottom up through lens of social history, everyday life, and popular culture. P/NP or letter grading.

88H. Modern Latin America (Honors). (5) Lecture, three hours; discussion, one hour. Honors course parallel to course 8B. P/NP or letter grading.

8C. Latin American Social History. (5) Lecture, three hours; discussion, two hours. Historical and contemporaneous perspective of role of ordinary people in Latin American society. Each lecture/film session centers on a major Latin American theme, illustrated of a theme in social history. P/NP or letter grading.

8CH. Latin American Social History (Honors). (5) Lecture, three hours; discussion, two hours. Honors course parallel to course 8C. P/NP or letter grading.

9A-9E. Introduction to Asian Civilizations. (6 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 ideas, traditions, and institutions of Indian civilization. 9C. History of Japan. Survey of Japanese historical experience from earliest recorded time to the present. P/NP or letter grading.


9E. History of China (Honors). (5–5) Lecture, three hours; discussion, one hour. 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. South Asia and the Islamic Traditions. Overview of a region united by its belief in a single divinity and its religious traditions and divided by great religious, cultural, and political pluralism, with focus on Vietnamese, Thai, Filipino, Khmer, Indonesian, and Malayo-Indonesian societies. P/NP or letter grading.

10A-10B. History of Africa, (5–5) P/NP or letter grading. 10A. To 1800. (Same as African American Studies M10A.) Lecture, three hours; discussion, one hour. Exploration of development of African societies from earliest times to the present. P/NP or letter grading.

10B. Introduction to Civilizations of Africa (Honors). (4) Lecture, three hours; discussion, two hours. Not open for credit to students with credit for course 10B or 10BH. Survey of social, economic, and political development in Africa since 1800, with focus on slave trade, imperialism and colonialism, and nation-building. Attention to different ideologies (nationalism, socialism, apartheid), rural/urban tensions, changing role of women. P/NP or letter grading.

10BH. Introduction to Civilizations of Africa (Honors). (5) Lecture, three hours; discussion, two hours. Not open for credit to students with credit for course 10B or 10BH. Honors course parallel to course 10B. 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 10BH. Survey of social, economic, and political developments in Africa since 1800, with focus on slave trade, imperialism and colonialism, and nation-building. Attention to different ideologies (nationalism, socialism, apartheid), rural/urban tensions, changing role of women. Four papers required. Satisfies Writing requirement of letter grading.

11A-1B. History of China. (5–5) Lecture, three hours; discussion, one hour. P/NP or letter grading. 11A. To 1000. Survey of early history of China—genesis of characteristic Chinese institutions and modes of thought from Neolithic to Shang period (c. 1000 to 1900). Focus on social, political, intellectual, and economic aspects of early and middle empires. 11B. Circa 1000 to 2000. Survey of later history of China—evolution of characteristic Chinese institutions and modes of thought from Eastern Zhou through the 2nd millennium to 618. Focus on social, political, intellectual, cultural, and economic aspects of early modern regimes and empires and rise of modern China into contemporary independent state. 11AH-11BH. History of China (Honors). (5–5) Lecture, three hours; discussion, two hours. Honors sequence parallel to courses 11A, 11B. P/NP or letter grading. 11AH. To 1000 (Honors); 11BH. 1000 to 1950 (Honors).

12A. Inequality: History of Mass Imprisonment. (5) Lecture, three hours; discussion, one hour. Beginning with end of U.S.-Mexican War (1848) and ending with beginning of World War II, historical analysis from days when Los Angeles first became U.S. town until 1940s when Pacific Ocean became global epicenter of human confinement. Exploration of major eras and turning points in city’s rise as both national and global leader in human incarceration, with review of historical foundations of mass incarceration in Los Angeles. Introduction to current social and political landscape of imprisonment in Los Angeles. P/NP or letter grading.

12B. Inequality: History of Neoliberalism. (5) Lecture, three hours; discussion, one hour. Exploration of origins, ideas, and philosophy of neoliberal theory that society is best organized on principles of free trade, deregulation, and privatization. Combination of political, economic, and intellectual history to consider in their various aspects emerging by at-tending to both 19th- and 20th-century liberalisms, colo-nialism, imperialism, rise of social democracy and mil-itary Keynesianism, and Mount Pelerin Society’s Gold War resuscitation of 19th-century liberalism. Coverage of economic crisis of 1970s, restructuring of global political economy in U.S., Europe, global south—specifically debt, structural adjustment policies, environmental degradation, and military intervention. Tracing of colonial roots of global north-south divide to reveal how neoliberal policies represent longer process of accumulating advantage and enclosure rather than sudden radical break from Keynesian model. P/NP or letter grading.

12C. Inequality: Global History of Anti-Colonial Thought and Struggle. (5) Lecture, three hours; discussion, one hour. Exploration of the history of anti-colonial and anti-imperialism 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 from comparative perspective in order to his-torize current conjuncture. Readings include Aimé Césaire, Frantz Fanon, Ho Chi Minh, Toten Miyazaki, Sun Yat-Sen, Shusu Kotoku, Malcolm X, Che Gue- vara, and Mahatma Gandhi. Use of dialogue to reveal and reflect on commonalities and differences of thinker/activist pairs. Historical background for each thinker and active engagement in interpretation and discussion of texts. Group project as way to reflect on current conjuncture. P/NP or letter grading.


14. Atlantic World, 1492 to 1850. (3-3) Lecture, three hours; discussion, one hour. Strongly recommended for History majors planning to take more advanced courses in history of any region bordering on Atlantic during period from 1500 to 1800. Exploration of idea of Atlantic world and few of major historical trends that shaped its history, including migration, slavery, impe-rial conflicts, and revolution. Atlantic history approach avoids national frameworks that assume creation of nation-states. In reconsidering how past is studied, highlights turning points in city’s rise as both national and global leader in human incarceration, with review of historical foundations of mass incarceration in Los Angeles. Introduction to current social and political landscape of imprisonment in Los Angeles. 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. World History to AD 600. (5) Lecture, three hours; discussion, two hours. Examination of earliest civiliza-tions of Asia, North Africa, and Europe—Mesopo-tamia, Egypt, Israel, India, China, Greece, and Rome—from development of settled agricultural communities until about AD 500, with focus on rise of cities, organi-zation of society, nature of kingship, writing and growth of bureaucracy, varieties of religious expres-sion and linkage between culture and society. P/NP or letter grading.

21. World History, circa 600 to 1760. (5) Lecture, three hours; discussion, two hours. Outline of world history from rise of Islam to start of Industrial Revolu-tion. Structure around a broad narrative of salient developments. Use of thematic and compar-ative approaches, with certain recurring themes and institutions that modulate from culture to culture. Following a variety of sources to look at way people perceived cultures outside their own. P/NP or letter grading.

22. Contemporary World History, 1760 to Present. (5) Lecture, three hours; discussion, one hour. Broad thematic survey of world history since the mid-18th century. Examination, through lecture and discussion, of global implications of imperialism, total war, nationalism, colonial change, decolonization, changes in women’s rights and roles, and eclipse of world com-munism. Designed to introduce students to historical study, help them understand issues and dilemmas facing the world today, and prepare them for more in-depth work in history of specific regions or countries of the world. P/NP or letter grading.

M60. Achaemenid Civilization and Empire of Alexander. (5) Same as Ancient Near East M60 and Iran M60. Lecture, three hours; discussion, one hour. Survey of period from circa 600 to 330 BCE, rise and fall of Achaemenid Persia, first world empire of antiquity, which was ended by Alexander the Great, whose travels are described in the Periplus. Focus on expansion of Achaemenid Empire, rise of social democracy and political ide-ology; comparative study of empires; administration and institutions; and religious and ethnic diversity in large, heterogeneous states. Students gain broad knowledge of Achaemenid administrative and military systems, faculty with ancient primary sources, and development of analytical skills central to discipline of history. P/NP or letter grading.

89H. Honors Seminars: History. (4) Seminar, three hours. Limited to maximum of 20 lower-division students. Readings and discussions designed to intro-duce students to current research in discipline. Culmi-nating project may be required. P/NP or letter grading.

BCE. Sophomore Seminar: Special Topics in His-tory. (5) Seminar, four hours. Requisite: designated GE lecture course; see Schedule of Classes for spe-cific requisite lecture and seminar topics. Designed for sophomores/juniors. Examination of selected aspects of lecture and discussion topics through readings, images, and discussions. P/NP or letter grading.

98. 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. P/NP or letter grading.

99HC. 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.

94. What Is History? An Introduction to Historical Thinking and Practice. (4) Lecture, two hours; dis-cussion, one hour. Examination of how we come to know about the past and why it matters. Exploration of how the historian works and analysis of sources and visual matters, including site visits. P/NP or letter grading.
96W. Introduction to Historical Practice. (5) Seminar, three hours. Requisite: English Composition 3. Introduction to study of history, with emphasis on historical theory and research methods. Satisfies Writing II requirement. Letter grading.

97. Historical Practices Adjunct Seminar. (1) Seminar, once per quarter. Corequisite: any course from History 97A through 97O. Limited to History majors. Exploration of topics covered in courses 97A through 97O in greater depth through supplemental readings, discussions, or other activities. P/NP grading.

97A-97O. Introduction to Historical Practice: Variable Topics. (4 each) Seminar, three hours. Discussion classes of no more than 15 students. Introduction to study of history, with emphasis on historical theory and research methods. Variable topics courses; consult Schedule of Classes for topics to be offered in specific term; P/NP or letter grading. 97A. Ancient History; 97C. European History; 97D. U.S. History; 97E. Latin American History; 97F. Near Eastern History; 97G. East Asian History; 97H. History of Science/Technology; 97J. African History; 97K. History of Religion; 97L. Eastern Asian History; 97N. Indian History; 97R. World History.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week. Independent research for lower and 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

100. History and Historians. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of historiography, including in-tellectual and social contexts in 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). Designed for juniors/seniors. Examination of specific historical themes from world historical perspective. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

C101A-C101B. Variable Topics: Interdisciplinary Studies. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Course C101A is not requisite to C101B. Designed for juniors/seniors. Topics may include gender, world history, masculinity, and economic 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). Designed for juniors/seniors. Development of model of Persianate world to bring together histories of Iran, India, and central Asia (including Afghanistan) between circa 1200 and 2000. Movement and interaction of different peoples between major cultural centers where Persian was used as common language of intellectual and political exchange. Weekly focus on one particular theme, with lecture material supplemented by translations of writings of princes, poets, tribesmen, travelers, and mystics who created Persian republic of letters between Sharaq, Samarkand, 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 to M103B. Designed for juniors/seniors. Political and cultural institutions of ancient Egypt and ideas on which they were based. P/NP or letter grading. M103A. History of Ancient Mesopotamia and Syria. (4) (Same as Ancient Near East M103A.) 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.


M104C. Babylonians. (4) (Same as Ancient Near East M104C.) Lecture, three hours. Designed for juniors/seniors. Overview of Babylonia and cultural history of region from late 3rd millennium BCE to invasion of Cyrus in 539 BCE, with focus on history and archaeology of region, urban structure, literature, and legal practices. P/NP or letter grading.

M104D. Assyrians. (4) (Same as Ancient Near East M104D.) Lecture, three hours. Designed for juniors/seniors. 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 Early Bronze Age to 3rd century BCE. P/NP or letter grading.

M105A-105B-105C. Survey of Middle East, 500 to Present. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Background and circumstances of rise of Islam, organization of Islamic Empire, and its development. Rise of Dynamic Successor States and Modern Nation States. Social, intellectual, political, and economic development. P/NP or letter grading. 105A. 500 to 1300; 105B. 1300 to 1700; 105C. 1700 to Present. P/NP or letter grading.


M107A-107B-107C. Armenian History. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Uses and techniques of Armenian oral history; preinterview, interview, and postinterview procedures; methods of compilation and evaluation. Field assignments, interviews, and summaries and/or paper based on interviews. P/NP or letter grading.

107E. Caucasus under Russian and Soviet Rule. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political, economic, social, and cultural history of Caucasus region since 1801. Georgian, Armenian, and Azerbaijani response to Russian and Soviet rule; nationality 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/seniors. Survey of political, social, economic, religious, artistic, and literary history of Islamic culture in Western Europe. P/NP or letter grading.

M108C. Culture Area of Maghrib (North Africa). (4) (Same as Anthropology M166Q and Arabic M171.) Lecture, three hours. Designed for juniors/seniors. In-depth introduction to North Africa, especially Morocco, Algeria, Tunisia, and Libya, also known as Maghrib or Tamazgha. Topics include changing notions of personal, tribal, ethnic, linguistic and religious identities; colonialism and gender and rights, changing representations of Islam, and religions in region’s public spaces. P/NP or letter grading.

109B. History of Israeli-Palestinian Conflict, 1881 to Present. (4) (Same as Anthropology C208A-C208B.) Lecture, three hours. Designed for juniors/seniors. Examination of origins of Arab-Israeli dispute from mid-19th century through founding of state of Israel and occupation of West Bank; further accent on Israeli-Palestinian conflict from post-1967 Israeli occupation. P/NP or letter grading.

M110A-M110B-M110C. Islamic 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. M110A. History of Achaemenid Empire. From end of Elam and rise of Medes to Macedonian conquest of Achaemenid Persia. Emphasis on political history, state structure, empire’s religions, and Greco-Persian interactions. Further accent on Cyrus’ empire and Darius’ world order, age of Persian Wars, Cyrus the Younger, Achaemen Egypt, Alexander’s campaigns, M110B. History of Arsacid (Parthian) Empire. From Hellenistic rule in Persia to Sassanian conquest. Emphasis on political history, state structure, empire’s religions, interactions with Hellenistic and Roman worlds. Further accent on Persian-Roman conflicts and cooperation, Persia and Huns. M110C. History of Eastern History. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading. 111A. Pre-modern. Examination of major issues in history of Middle East. 111B. Early Modern. Examination of Islamic world in Ottoman period (1453 to 1923); relationship between history and literary imagination and view of history as dialogue between past and present; scholarly debate on urban history of early-modern Middle East; introduction to corpus of theories (world economy paradigm) through discussion of Ottoman port cities. 111C. Modern. Middle East underwent widespread social, economic, and cultural changes during 19th century that propelled 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, political economy, one hour (when scheduled). Designed for juniors/seniors. Examination of the history of Islamic West (Maghrib) from Muslim conquest in 7th and 8th centuries CE until 1578. P/NP or letter grading.

112B. History of Islamic Iberia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political, social, economic, religious, artistic, and literary history of Islamic world in Western Europe. P/NP or letter grading.
of history, art, and monuments of ancient Greece through daily lectures and field trips to archaeological sites.
Part of UCLA Summer Travel Program. P/NP or letter grading.

112D. History and Monuments of Rome: Field Studies. (4) Fieldwork, three hours. Enforced corequisite: course 112B. Examination of history, art, and monuments of ancient Rome through daily lectures and field trips to museums 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.


113C. Ancient Historiography: Theory and Practice. (4) (Same as Classics M133.) 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 periods and locations. Time periods covered: Homeric, Hellenistic, Lysias, Livy, Tacitus, and others. 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/seniors. 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 Emergence of Christianity. Early empire treated in more detail, supplemented by survey of social and economic changes in 3rd century. 114C. Transformation of Classical World. Political, cultural, and religious history of Italy 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. Introduction to topics in Greek and Roman history, including Roman law, ancient Greek and Roman slavery, world of Caesar Augustus, Greek democracy, and the Alexander the Great. May be repeated for a maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

116A–116B. Byzantine History. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, socioeconomic, religious, and cultural continuity in millennial history of Byzantium. Reforms of Diocletian. Byzantium’s relations with Latin Europe, Slavs, Sassanids, Arabs, and Turks. P/NP or letter grading. 116C. Power and Imagination in Byzantium. (4) (Same as Classics M170C.) Lecture, three hours; discussion, one hour (when scheduled). Requisites: course 116B. Study of relations of authority and intelligentsia in highly centralized Byzantine Empire. Topics include criticism of emperor, iconoclasm, intellectual freedom, attempts at reforming church, and political and intellectual lives of emperors. P/NP or letter grading.

119A–119B. Medieval Europe. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. 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/NP or letter grading.

119C. Medieval Civilization: Mediterranean Heartlands. (4) Lecture, three hours; discussion, one hour (when scheduled). Survey of Western Mediterranean Europe, social/economic/cultural within political framework, including its relation with other cultures. P/NP or letter grading.

119D. Topics in Medieval History. (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 social conflict in Europe. May be repeated for a maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

120A–120B. East-Central Europe. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 120A. Long 19th Century, 1780 to 1914. Analysis of characteristics of peripheral 19th-century capitalism, effort to modernize and catch up, and factors and consequences of failures in economy, politics, and culture. 120B. Short 20th Century, 1918 to 1990. Analysis and interpretation of storny history of crisis zone where wars, revolts and revolutions, and violent types of extremism led to historical detour: 70 years of departure from Western values and at last effort to turn back to them.

120C. East-Central Europe in Transition, 1868 to 1990. Survey of political, economic, social, and cultural changes of countries and societies of East-Central Europe. P/NP or letter grading.

120D. Film and History: Central and Eastern Europe. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Restoration politics, intransigent cold war. 121A. Revolution and Emancipation, 1789 to 1914. Survey of political, economic, social, and cultural changes of countries and societies of Central Europe from 1789 to 1914. P/NP or letter grading.

121B. The Growth of Modern Europe, 1815 to 1914. Survey of political, economic, social, and cultural changes of countries and societies of Central Europe from end of 19th century to beginning of 20th century. P/NP or letter grading.

122A. Film and History: Central and Eastern Europe. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 122A. Film and History: Central and Eastern Europe. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. C/NC or letter grading. 122B, 122C, 122D. 15th Century. (Same as Art History M122B, M122C, M122D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Renaissance and Reformation. 123A–123B–123C. War and Diplomacy in Europe. (4–4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 123A. 1500 to 1615. Survey of military and diplomatic history, the development of two world wars, shifts from monarchical to federal structures, and the growth of nationalism. P/NP or letter grading. 123B. 1618 to 1715. The Thirty Years’ War and its consequences. 123C. 1715 to 1815. French Revolution and Napoleonic era. 124A. Revolution and Emancipation, 1789 to 1914. Survey of political, economic, social, and cultural changes of countries and societies of Central Europe from 1789 to 1914. P/NP or letter grading.

125A. Baroque and Enlightenment Germany. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 125A. Baroque and Enlightenment Germany. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 125B. 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 Thirty Years’ War to end of Napoleonic Wars. Consideration of absolutism as political ideology, and baroque and Enlightenment cultures as new discourses on power and hierarchy. P/NP or letter grading.

126A. Nationalism and Modernization in 19th-Century Germany. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 126B. German Empire and Nationalism. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 126C. 20th-Century Germany. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Transitions that Germany has faced during this century: two world wars, shift from monarchical to federal structures, and the growth of nationalism.

141A-141B. American Economic History. (4-4) Lecture; three hours; discussion; one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. Lec- tion. Three hours; discussion; one hour (when scheduled). Designed for juniors/seniors. 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 about humanism and God, nature and society, that have been a part of American history. Study of major ideas, their connections with one another, their relationship to American life, and their expression in great documents of American thought. P/NP or letter grading.


146D. U.S. and Comparative Immigration History. (4) Lecture; three hours; discussion; one hour (when scheduled). Designed for juniors/seniors. Survey of immigration and internal migration, cultures of racial and ethnic stratification, migrant political ac- tivism, and policies that govern migration, citizenship, and exclusion in U.S. P/NP or letter grading.

146E. History of Women in Colonial British Amer- ica and Early U.S., 1600 to 1800. (4) (Same as Gender Studies M147B.) Lecture; three hours; discussion; one hour (when scheduled). Designed for juniors/seniors. Introduction to major themes in history of early American women from initial confrontation of En- glish and American Indian cultures in early 17th cen- tury to rise of women’s rights movement in mid-19th century. P/NP or letter grading.

147D. History of Women in U.S., 1860 to 1980. (4) (Same as Gender Studies M147D.) Lecture; three hours; discussion; one hour (when scheduled). Designed for juniors/seniors. Introduction to major themes in history of American women from abolition of slavery and Civil War to rise and consequences of second-wave feminism. P/NP or letter grading.

147E. History of Deaf Communities in America. (4) (Same as American Sign Language M120.) Lecture; three hours; discussion; one hour (when scheduled). Designed for juniors/seniors. History of deaf people, including development of sign language, deaf education, history of deaf culture, deaf movement, and role of hearing tech- nology. Historical development of emergence, growth, and survival of America’s deaf community and develop- ment of deaf identity over time. P/NP or letter grading.

148B. American Working Class Movements. (4-4) Lecture; three hours; discussion; one hour (when scheduled). Designed for juniors/seniors. History of American working class from Colonial times to present, with emphasis on organized and unorganized labor, history of Knights of Labor, AFL-CIO, and development of labor politics. P/NP or letter grading.

149A. U.S. Urban History. (4-4) Lecture; three hours; discussion; one hour (when scheduled). Designed for juniors/seniors. History of U.S. urbanization from pre-Civil War to present, with emphasis on understanding of how U.S. urbanization is interpreted in variety of places, settings, and media for variety of audiences and purposes. P/NP or letter grading.

150A. Comparative Slavery Systems. (4) (Same as African American Studies M158A.) Lecture, three hours; discussion; one hour (when scheduled). Des- signed for juniors/seniors. Major epi- sodes in history of slavery from 16th century to present. Emphasis on outlining similarities and differences among local settings, treatment of captives, and scale of slavery systems. P/NP or letter grading.

150B-M150C. Introduction to Afro-American His- tory. (4-4) (Same as African American Studies M158B-M158C.) Lecture; three hours; discussion; one hour (when scheduled). Designed for juniors/seniors. History of Afro-American history, from early origins of slaves and slavery to present. Survey of Afro-American experience, with emphasis on three great transitions of Afro-American life: transi- tion 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). Designed for juniors/seniors. History of Afro-American music from 1960s to present. Emphasis on how music reflects and fuels local, national, and global social movements. P/NP or letter grading.

150E. African American Nationalism in First Half of 20th Century. (4) (Same as African American Studies M150E.) Lecture; three hours; discussion; one hour (when scheduled). Designed for juniors/seniors. Historical analysis of African American search in first half of 20th century for national/group cohesion through collectively built institutions, associations, or- ganized protest movements, and ideological self-defi- nition. P/NP or letter grading.

151A. History of Chicano Peoples. (4) (Same as Chicano/o and Central American Studies M159A.) Lecture; three hours; discussion; one hour (when scheduled). Survey lecture course on historical development of Mexican (Chicano) community and people of Mexican descent (Indio-Mestizo-Mulato) north of Rio through 17th century. Emphasis on history and culture, economic, political, and social history. P/NP or letter grading.

152A. Introduction to Public/Applied History. (4) Lecture; three hours; discussion; one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.
156. Topics in U.S. History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed 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.

157. African 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—African, American, European, Islamic, and Asian. P/NP or letter grading.

158. 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/se-

159. Latin America in 19th Century. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Emphasis on political and economic change. P/NP or letter grading.

160A. Latin American Elites. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of concept of permanent crisis to describe and explain structure of permanent revolution under one-party democracy. Analysis of unresolved colonial and 19th-century problems and current trends. Domestically 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). Designed 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.

162A. Modern Brazil. (4) Lecture, three hours; dis-
cussion, one hour (when scheduled). Designed for juniors/seniors. Examination of historical and political processes in the modern Brazilian state. Emphasis on modernization and political development. P/NP or letter grading.

162B. Brazil and Atlantic World, 1500 to 1822. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Economic, social, and cultural development of colonial society in Brazil from discovery in 1500 to independence in 1822, placing it in context of Portugal’s overseas expansion in Asia, Africa, and Americas. Emphasis on Portuguese, indigenous, and African contacts of modern Brazil. P/NP or letter grading.

162C. History of Argentina. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Emphasis on political, economic, and social developments that shaped Argenta-
tina from colonial times to present. Emphasis on 19th-
century development of agro-export economy and 20th-century formation of mass society. P/NP or letter grading.

162-164Z. Topics in African History. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Examination of specific topics that have continental application rather than proceeding on strictly chronological or regional basis. P/NP or letter grading.

164B. Africa and the Atlantic World. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. Social, economic, political, and cultural impact of slave trade on African society, with emphasis on Atlantic trade without neglecting those of ancient Mediterranean, Islamic, and Indian Ocean worlds. Abolition and African diaspora. P/NP or letter grading.

165A. Early Latin America. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Advanced survey of Latin American history from conquest to independence, with emphasis on social, political, and economic aspects. P/NP or letter grading.

165B. Indians of Colonial Mexico. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of social and cultural history of Indians of Mexico, especially central Mexico, from time of European conquest until Mexican independence, with emphasis on internal view of indigenous and colonial society. P/NP or letter grading.


167A. History of East Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of cultural diversity of East Africa from earliest times to growth of complex societies, its place within Indian Ocean system, and colonial conquest to gaining of independence and postcolo-

167A. History of North Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history of Ethi-
opia, Sudan, and Somalia in regional context of north-
east Africa from earlier times, with emphasis on economy and society, evolution of state, and significance of Christianity and Islam. P/NP or letter grading.

167B. History of South Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of cultural diversity of South Africa from earliest times, with emphasis on establish-
ment of agriculture, growth of trade, rise of states, and incorporation of region into world economy. P/NP or letter grading.

168A. History of Southern Africa. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history of South African peoples and their interactions to 1870. 168B. Since 1870. Interactions between inhabitants of southern Africa since 1870.

169A. Thought and Society in China. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Recommended prepa-

course 11A. Elite and popular expressions of

cultural meanings, the political and social implications of these representations, and their role in shaping collective identities.
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, Malaysia, Singapore, Burma, 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 the 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 the history of Southeast Asia. P/NP or letter grading.

M178. Introduction to History and Culture of Iranian Jews. (4) (Same as Iranian M178 and Jewish Studies M178.) Lecture, three hours. Introduction to political, intellectual, cultural, and socioeconomic status 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 and intellectual history, include identity and status, religious tolerance versus forced conversion, Iranian Jewish emancipation, and the symbiosis between Iranian Jews and other Iranians. P/NP or letter grading.

179A. Variable Topics in History of Medicine. (4) Lecture, three hours. Designed for juniors/seniors. Variable topics may include global health, biomedical technologies, medicine and society, Chinese medicine, psychiatric illness, and mental illness and medicine, and empire, epidemics and infectious disease. May be repeated for maximum of 16 units with topic/instructor change. P/NP or letter grading.

179B. History of Medicine: Foundations of Modern Medicine. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Cultural, scientific, and social context that shaped modern medicine in the Renaissance to Romantic era. Topics include establishment of anatomy, physiology, and modern clinical medicine, mapping of human body, and approach to mental illness. Introduction to anato-mo-clinical method at Paris School. P/NP or letter grading.

179C. Medicine and Society in 20th-Century America. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Cultural, intellectual, social, and political context that shaped modern medicine from Renaissance to Romantic era. Historical and sociological approaches to medicine in the 20th century. May be repeated for maximum of 16 units with topic/instructor change. 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, public nature of science. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M180B. Historical Perspectives on Gender and Science. (4) (Same as Gender Studies 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, persona of man of science, role of women in scientific development, scientific investigations of women and femininity. 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 16 units with topic and/or 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. Designed for juniors/seniors. History of Los Angeles Jewry. Emphasis on current trends, life of the individual Jews, and Los Angeles 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 Jewish culture and experiences: immigration, immigration and migration patterns, and frontiers and borderlands, while providing overview of historical methodologies and interpretation. Examination of ethical and methodological implications of writing Jewish history in digital age and learning how to read and analyze these new media works as primary and secondary sources. 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). Designed for juniors/seniors. Survey of political, social, and religious development of Jews. 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). 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 Jewish Studies M182C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political, social, and religious development of Jews with an emphasis on the two 20th century Jewish movements that produced the most monumental religious and political change in all of Jewish history: Zionism and the establishment of the State of Israel in 1948, 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.

183A-183B. Third Reich and Jews. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Nature and function of myth in history of religion and culture. Examples selected from nonliterary as well as from other Asian and European traditions. P/NP or letter grading.

185B. Religions of South and Southeast Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics vary from year to year and include Buddhism in India; religions and beliefs of India and Southeast Asia. Consult Schedule of Classes for specifics. May be taken independently for credit. P/NP or letter grading.

M185C. History of Religions in Southeast Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics vary from year to year and include Buddhism in India; religions and beliefs of India and Southeast Asia. Consult Schedule of Classes for specifics. 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/seniors. Main polytheistic systems of ancient Near East, with emphasis on ancient Empydoma 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.

185E. Special Topics in History of Religions. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics announced in Schedule of Classes and include ancient Germanic cults; Renais-sance mysticism; mystics of low countries: goddesses; religion in secular age. 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 M185F.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Christian movement from its origins to circa 160 CE, stressing its continuity/discontinuity with Judaism, various efforts to define criteria for what constitutes a "church," and the role of the emperor in its development. P/NP or letter grading.

M185G. Religious Environment of Early Christians. (4) (Same as Religion M185G.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Rich variety in religious practice and thought in Mediterranean world of 1st century CE as context for developing Christian faith. Topics include Pharisees, Quimran, Philo, Stoics, Epicureans, traditional Greek and Roman religions, mysteries, astrology, magic, gnosticism, and emperor-worship. P/NP or letter grading.

M185I. Jesus of Nazareth in Historical Research. (4) (Same as Religion M185I.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Stimulated by significant post-Enlightenment historical evaluations, students are led to firsthand knowledge (in translation) of various multilayered sources for reconstruction of life, teaching, and initial impact of Jesus of Nazareth in his social, economic, political, and religious contexts. 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). Designed for juniors/seniors. Exploration of history of women, gender, and sexuality from prehistory to 1792. Focus on major patterns with particular attention paid to periods of revolution, social change, gender, and sexuality from prehistory to 1792. Discussion of gender, sexuality, and life-cycle changes in prehistory. P/NP or letter grading.

M186B. Women and Gender, 1792 to Present. (4) (Same as Gender Studies M186B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of history of women, gender, and sexuality from prehistory to 1792. Focus on major patterns with particular attention paid to periods of revolution, social change, gender, and sexuality from prehistory to 1792. Discussion of gender, sexuality, and life-cycle changes in prehistory. P/NP or letter grading.
M186B. Global Feminism, 1550 to Present. (4) (Same as Gender Studies 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 social) worldwide and over one and one half centuries. P/NP or letter grading.

187A-187M. Variable Topics Historiography Pros-eminars. (4 each) Seminar, three hours. Proseminars on historiography involving close reading and critical discussion of selected sources on selected topics. Reading, discussion, and analytical writing culminating in one or several historiographic papers. Repeated once for credit. P/NP or letter grading. 187A. Ancient History; 187B. Medieval; 187C. Europe; 187D. Latin America; 187E. Near East; 187G. East Asia; 191L. Science/Technology; 191J. Jewish History; 191M. Southeast Asia. 187N-187R. Topics in Historiography. (4 each) Seminar, 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. Medieval; 191C. Europe; 191E. Latin America; 191F. Near East; 191G. East Asia; 191L. Science/Technology; 191J. Jewish History; 191M. Southeast Asia. 191O. Digital History.

C191D-C191R. Topics in History. (4 each) Seminar, three hours. Designed for seniors. Limited to 15 students meeting with faculty member. Reading and discussion of selected topics, and development of culminating project. May be repeated once for credit. P/NP or letter grading. 191D. U.S. May be concurrently scheduled with course 2201H; 191J. Africa. (Formerly numbered 111J.) May be concurrently scheduled with course 2201H; 191N. India. (Formerly numbered 191N.) May be concurrently scheduled with course 2201H; 191O. World. (Formerly numbered 191O.) May be concurrently scheduled with course 2201W; 191P. Historical Theory. May be concurrently scheduled with course 2201C; 191Q. Japan. (Formerly numbered 191R.) May be concurrently scheduled with course 2201M; 191DC. CAPP Program, Washington, DC, Research Seminars. (8) (Same as Communication M191DC, Political Science M191DC, History M191DC, and Sociology M191DC) Seminar, three hours. Limited to CAPP 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 with 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.

M194DC. CAPP Program, Washington, DC, Research Seminars. (4) (Same as Political Science M194DC, Public Affairs M194DC, and Sociology M194DC) Seminar, three hours. Limited to CAPP 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 with 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. 195. Community or Corporate Internships in Histoty. (4) Tutorial, to be arranged; fieldwork, 8 to 10 hours. Limited to juniors/seniors. Internship in applied public history setting coordinated through Public History Initiative. Students meet on regular basis with faculty supervisor, provide periodic reports of their experience, and write final research paper. Four units may be applied toward major requirements. Individual contract with supervising faculty member required. P/NP or letter grading. 195CE. Community and Corporate Internships in History. (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 instructor, and write final research paper. Faculty mentor and graduate student intern 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.

M195DC. CAPP Program, Washington, DC, Internships. (4) (Same as Political Science M195DC, Public Affairs M195DC, and Sociology M195DC) Tutorial, four hours. Limited to junior/senior CAPP 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.

187. 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. 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 History. (4) Tutorial, to be arranged. Course 198A is requisite to 198B, which is requisite to 198C. Limited to juniors/seniors. 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/ seniors. 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 investigation under guidance of faculty member. 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) Tutorial, three hours. May be repeated for credit. 200A. Ancient Greece; 200B. Ancient Rome; 200C. Medieval; 200D. Europe; 200H. U.S.; 200L. Latin America; 200J. Near East; 200K. China; 200M. Africa; 200N. Science/Technology; 200O. Theory of History; 200P. Jewish History; 200S. Armenia and Caucasus; 200T. Southeast Asia; 200U. Psychohistory. 200F-200Q. Topics in Historiography. (4 each) Seminar, three hours. Designed for graduate students. Proseminar on historiography involving close reading and critical discussion of secondary scholarship and primary sources on selected topics. Reading, discussion, and analytical writing culminating in one or several historiographical essays. May be repeated for credit. S/U or letter grading. 200R. World. May be concurrently scheduled with course 2187N; 200M. Japan. (Formerly numbered 200M.) May be concurrently scheduled with course 2187R; 200Q. May be concurrently scheduled with course 2187R; 2000. Theory of History. P/NP or letter grading.

M200V. Advanced Historiography: Afro-American. (4) (Same as African American Studies M200V) Seminar, three hours. May be repeated for credit. S/U or letter grading. 200W. Advanced Historiography: American Indian Peoples. (4) (Same as American Indian Studies M200W) Lecture, 90 minutes; seminar, 90 minutes. Introduction to culture-histories of American Indians and review of Indian concepts of history. Stereotypical approach to content and methodologies related to Indian past that is interdisciplinary and multicultural in its scope. Letter grading.

200Y. Advanced Historiography: Application of Economics to History. (4) Discussion, three hours.

200Z. Advanced Historiography: Chicano. (4) Discussion, three hours. Graduate survey of leading literature in Chicano history, with emphasis on new methodological and theoretical approaches in the field.

201A-201V. Topics in History. (4 each) Seminar, three hours. Graduate courses involving reading, lecturing, and discussion of selected topics. May be repeated for credit. When concurrently scheduled with course 191D, undergraduates must obtain consent of instructor to enroll; S/U or letter grading.

201A. Ancient China; 201B. Ancient Rome; 201C. Ancient Greece; 201D. Early Modern Europe; 201E. Modern Europe; 201F. Russia/Eastern Europe; 201G. Britain; 201H. Latin America; 201J. Near East; 201K. China; 201L. Science/Technology; 201M. Classical; 201N. Medieval; 201O. Russian History; 201P. Jewish History; 201Q. Medieval; 201R. Modern European History; 201S. East Asia; 201T. Southeast Asia; 201U. Psychosocial; 201V. Digital History.

202H-202W. Topics in History. (4) Seminar, three hours. Designed for graduate students. Reading and discussion of current economic approaches and theories. May be repeated for credit. May be concurrently scheduled with course C191D-C191P; S/U or letter grading.


206A-206B. Seminars: Near East History. (4–4) Seminar, three hours. Course 206A is requisite to 206B. In Progress (206A) and letter (206B) grading.

208A-208B. Variable Topics: Interdisciplinary Studies. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Course 208A is not requisite to 208B. Topics may include gender, world history, masculinity, and economic history. May be repeated for credit with topic change. Concurrently scheduled with courses C101A-C101B; S/U or letter grading.


211A-211B. Topics in Political History. (4) Seminar, three hours. Course 211A is requisite to 211B. In Progress (211A) and letter (211B) grading.

212. Methods in Armenian Oral History. (4) Seminar, three hours. Uses and techniques of Armenian oral history; preinterview, interview, and postinterview procedures; methods of compilation and evaluation. Field assignments, interviews, and summaries and/or paper based on interviews. S/U or letter grading.

213A-213B. History of Women, Men, Sexuality History. (4–4) Seminar, three hours. S/U or letter grading. 213A. Readings include historiography and theory, as well as classic and new historical studies drawn widely from U.S., European, Latin American, Middle Eastern, and Asian history. Focus on the social and cultural contexts that have shaped the experiences of women and men across time and space.

213D. Women’s and Gender History. (4) Seminar, three hours. Limited to graduate students. Focus on history of women and gender. Content is international, with emphasis on transnational histories and approaches. S/U or letter grading.

214. Topics in World History. (4) (Formerly numbered C214.) Seminar, three hours. Graduate seminar utilizing world-historical perspective to examine variety of broad themes in human history. Topics vary annually.

215A-215B. Seminars: Ancient History. (4–4) Seminar, three hours. Course 215A is requisite to 215B. In Progress (215A) and letter (215B) grading.

216A-216B. Seminars: Byzantine History. (4–4) Seminar, three hours. Course 216A is requisite to 216B. In Progress (216A) and letter (216B) grading.

217. Sources and Handbooks of Medieval History. (4) Seminar, three hours. Preparation: reading knowledge of German or French. Introduction to types of medieval source materials and the handbooks needed to use them.

M218. Paleography of Latin and Vernacular Manuscripts, 900 to 1500. (4) (Same as Classics M218, English M215, and French M210.) Lecture, three hours; discussion, one hour. Introduction to theory 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 the student with training in the calligraphy and transcription of later medieval manuscripts, and (3) examine manuscript book as witness to changing society that produced it. Focus on relationships between Latin manuscripts and vernacular manuscripts with regard to their respective presentation of written texts. S/U or letter grading.

221A-221B. Seminars: Medieval History. (4–4) Seminar, three hours. Course 221A is requisite to 221B. In Progress (221A) and letter (221B) grading.

225. Colloquium requiring Graduate Students in Modern European History. (4) Seminar, three hours. Normally limited to and required of 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: Reformation. (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 adviser. 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 1839. (4–4) Seminar, three hours. Course 235A is requisite to 235B. Analysis of internationalization of European periphery and its relation with European peripheries. Comparative analysis on different regions, stressing main characteristics of interactions between peripheries. 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. Cyclical trend, various economic regimes, and integration of the European Union. 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: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision making.

236B-236C. Seminars: Psychohistory. (4–4) Seminar, three hours. Course 236B is requisite to 236C. Exploration of individual and group psychological processes and their uses in historical research. In Progress (236B) and letter (236C) 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. Forum for critical discussion of work of students and invited scholars. Presentation of...
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: Law. (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, four hours. Graduate survey of significant literature dealing with U.S. history from the Colonial period to the present. The course may be taken independently for credit. 246A. Colonial Period. 246B. 1790 to 1900. 246C. 20th Century.

247A-247B. Seminars: Early American History. (4–4) Seminar, three hours. Course 247A is requisite to 247B. In Progress (247A) and letter (247B) grading.

248. Anthropology and History of Mediterranean. (4) (Same as Anthropology M248 and Near Eastern Languages M248) Seminar, three hours. Introduction to historical and cultural writings about Mediterranean. Drawns on variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary constructs of Mediterranean history, discursive concepts, colonial and post-colonial Mediterranean, Levantinism, thalassology, Mediterraneanism, French Mediterraneans, Jewish Mediterranean, colonial and post-colonial Mediterranean 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.

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. Re- search seminars taught jointly by two faculty members. In Progress (251A) and letter (251B) grading.

251C. Colloquium: Research and development of individual research projects. 251B. Requisite: 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 Intellec- tual 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.

256C. Political Economy of Race. (4) (Same as African American Studies M256C) Seminar, four hours. Examination of history and development 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 production and 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; rhythmical 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.

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.

258A-258B. Seminars: Working Class History. (4–4) Seminar, three hours. Course 258A is requisite to 258B. In Progress (258A) and letter (258B) grading.

259A-259B. Seminars: Women. (4–4) (Same as Gender Studies M259A-M259B.) Seminar, three hours. Course 259A is requisite to 259B. Focus on women's social and political issues seen in U.S. and comparative context. In Progress (259A) and letter (259B) grading.

260A-260B. Seminars: Native American History. (4–4) Seminar, three hours. Course 260A is requisite to 260B. In Progress (260A) and letter (260B) grading.


261A-261B. Seminars: Afro-American History. (4–4) Seminar, three hours. Course 261A is requisite to 261B. Social and political history of the Afro-American, including emphasis on development and structure of race relations and the conceptualization of race, black and white. In Progress (261A) and letter (261B) grading.

262A-262B. Seminars: Chicano History. (4–4) Seminar, three hours. Course 262A is requisite to 262B. In Progress (262A) and letter (262B) grading.

263A-263B. Seminars: History of American West. (4–4) Seminar, three hours. Course 263A is requisite to 263B. In Progress (263A) and letter (263B) grading.

264A. History of American Education. (4) (Same as Education M264A.) Discussion, three hours. History of educational thought and of social forces imposing 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.

266A-266B. Seminars: Colonial Latin American History. (4–4) Seminar, three hours. Course 266A is requisite to 266B. In Progress (266A) and letter (266B) grading.

266C. Analyzing Historical Texts. (4) (Same as Linguis- tics M266C.) Seminar, four hours. Designed for graduate students. Analysis of linguistic structure and ethnomethodological context of legal and other documents written by native-speaking scribes and translators. Topics include paleographic technique and text analysis sofware. May be repeated for credit. S/U grading.

267A-267B. Seminars: Latin American History, 19th and 20th Centuries. (4–4) Seminar, three hours. Course 267A is requisite to 267B. In Progress (267A) and letter (267B) grading.

268A-268B. Seminars: Recent Latin American History. (4–4) (Same as Latin American Studies M268A-M268B.) Seminar, three hours. Course 268A is requisite to 268B. Reading knowledge of Spanish and Portuguese normally required. Seminar devoted to selected topics of interdisciplinary nature. In Progress (M268A) and letter (M268B) grading.

275A-275B. Colloquia: African History. (4–4) Seminar, three hours. Designed for all entering and con- tinuing graduate students in African history. Source identification and research facilitated by faculty members from different departments. Topics vary according to participating fac- ulty. May be repeated for credit with consent of in- structors. S/U or letter grading.

276. Teaching Apprentice Practicum. (1–4) Seminar, three hours. Course 276A is requisite to 276B. In Progress (276A) and letter (276B) grading.

289A-289B. Seminars: Southeast Asia. (4–4) Seminar, four hours. Course 289A is requisite to 289B. In Progress (289A) and letter (289B) grading.

291A-291B. Seminars: Jewish History. (4–4) Seminar, three hours. Course 291A is requisite to 291B. Studies in intellectual and social history of Jewish people from ancient times to modern period. In Progress (291A) and letter (291B) grading.

293A-293B. Seminars: History of Religions. (4–4) Seminar, three hours. Course 293A is requisite to 293B. In Progress (293A) and letter (293B) grading.

294A-294B. Western Science, Religion, and Polit- ical Economy, 1600 to 1830. (4–4) Seminar, three hours. Study of science in context of religious belief commonplace in early modern Europe and, to a lesser extent, in American colonies. Examination of relationship of both cultural matrices to po- litical and economic change in modern Europe.

295. Theories of Scientific Change. (4) Seminar, three hours. Historical and philosophical perspectives on science, focusing on rationality of scientific change and logic and psychology of scientific discovery. Readings and seminar-style discussions of such au- thors as Popper, Kuhn, Toulmin, Lakatos, Holton, Bu- chdahl, Feyerabend, and others.

297A-297B. Seminars: History of Science. (4–4) Seminar, three hours. Course 297A is requisite to 297B. In Progress (297A) and letter (297B) grading.

299. Interdisciplinary American Studies. (6) (Same as English M299.) Discussion, four hours. Readings, discussion, and papers on common theme, as proposed by faculty members from different departments. Topics vary according to participating fac- ulty. May be repeated for credit with consent of in- structors. S/U or letter grading.

375. Teaching Apprentice Practicum. (1–4) Seminar, three hours. Course 375A is requisite to 375B. In Progress (375A) and letter (375B) grading.

490. Writing Workshop for Graduate Students. (4–4) Tutorial, three hours. Writing workshop on students’ papers-in-progress. Analysis and group discussion of rhetorical and stylistic principles, illustrated in stu-
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 practice teaching sessions within the structure of a seminar. Students receive unit credit toward full-time equivalence but not toward the nine-course requirement for MA degree. S/U grading.

1. Plague Culture. (5) Seminar, three hours. Study of episodes and metaphors of plague in Western culture from ancients into age of AIDS. Topics include scriptural, ancient tragedy, Black Death, realist novel, gothic, and aesthetic metaphors of plague, Nazi propaganda, existential and absurdist thought, postwar cinema, contemporary American theater, 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. Available psychotherapies, educational media, and drugs can alter our way of thinking. New wave of information technologies and biotechnologies is changing existing landscape. Survey of available tools that claim neuroplastic brain-changing effects, consideration of future developments, and engagement of students in discussion on ethical and philosophical implications of these developments. 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. Spans disciplines of comparative literature (French, German, American Gothic, modern, English), medicine/psychiatry, and history. Major themes include fear and oppression; murder and infanticide; despair and suicide; barbarism and repression; hatred and revenge; incest and shame; jealousy and paranoia; madness and psychosis; sociopathy and evil. Elucidation of themes from texts, and discussion of each text in its historical and social context. Examination of pathological behaviors in context of their medical and psychiatric framework when they correspond to clinical diagnostic entity. Texts used as springboard to elaborate 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 queen of Egypt as seen by her contemporaries and study of origins of myths about her and ways in which subsequent cultures and eras have imagined her in literary, visual, and cinematic representations. Texts used as springboard to elaborate on recurrent themes in history of human civilization. P/NP or letter grading.

6. Energy Issues: Before and Now. (5) Seminar, three hours. Reading of physics and chemistry of concepts of energy, history over ages of turning of discoveries into products in this area, including use of fossil concepts of energy, history over ages of turning of discoveries into products in this area, including use of fossil fuels, and discussion of current energy issues, including alternative energies. P/NP or letter grading.

7. Saint and Heretic: Joan of Arc and Gilles de Rais. History and Myth. (5) Seminar, three hours. Examination of both history of Joan of Arc and Gilles de Rais and of way in which, over time, their histories became legends, driven by various agendas including national identity, beatification, and gender politics. P/NP or letter grading.

8. Life, Death, and Everything in Between. (5) Seminar, three hours. Designed for College Honors students. Literature course with classic texts used to explore various aspects of death as they relate to health and illness. Broad themes including creation, death, deformity, madness, contagion, infertility, and alienation to be drawn from texts spanning Shakespeare to Pynchon. To illuminate one central aspect of human experience to be examined in its historical context as well as in context of contemporary practice of medicine. Exploration of social, philosophical, and ethical issues concerning to each theme and timely and controversial aspects of modern healthcare. P/NP or letter grading.

9. Visual Communication and Scientific Principles. (8) Seminar, four hours. Opportunity for collaboration between those in science-related disciplines and those in art/humanities-related disciplines. New ways in which science can be visually communicated, using tools, techniques, and media that are typically outside science education. Science students learn innovative ways of presenting scientific data and design and 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. Prior knowledge of any foreign language not required. Introduction to language from sociological perspective of gender. Use of research and examples primarily in English, Japanese, and Russian to explore nature of and stereotypes about male and female gender roles and gendered language, as reflected in lexicon, language behavior, phonetics and intonation, and language acquisition and linguistic change. P/NP or letter grading.

11W. Postmodern Literature and Culture. (5) Seminar, three hours. Enforced requisite: English Composition 3. Exploration of literature (and some film, music, and fine art) that emerged after World War II in postmodern era. Postmodern literature and other postmodern cultural forms challenge master narratives or belief systems, fostering skepticism toward totalizing truth claims while encouraging us to embrace diverse perspectives and heterogeneous models of identity. Satisfies Writing II requirement. Letter grading.

12. Sacred Form: Literature and Poetry in India from Bronze Age to Premodern Times. (4) Seminar, three hours. Exploration of cultural and literary development in India from early religious poetry (prior to 1000 BC) to broad range of literary styles and diverse religious and philosophical movements through classical, medieval, and premodern 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 something beautiful, 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 primes and elegant theory of prime numbers, factorization, and modular arithmetic. P/NP or letter grading.

14. Interaction of Science and Society. (5) Seminar, three hours. Examination of interaction of science and society and effects of this interaction on history, development of societies, evolution of revolutionary ideas as modeled in Galileo, Darwin, and others, and selected contemporary issues such as genetic engineering and war against infectious diseases. P/NP or letter grading.

15. Symmetry. (5) Seminar, four hours. Symmetry is one of fundamental intellectual frameworks of civilization, one that permeates sciences, arts, and other endeavors. Symmetry as it appears in mathematics, physics, and biology. Connections to and discussion of visual arts and music. Guest speakers from art community to complement scientific point of view. P/NP or letter grading.
16. Science of Singing Voice. (5) Seminar, three hours. Study of methods, including computer laboratory work, of quantifying aspects of voice production. Study of students' own vocal productions as well as recorded samples of famous singers. P/NP or letter grading.

17. Art, Entertainment, and Social Change. (5) Seminar, three hours. Designed for College Honors students. Integrative examination of evolving impact of arts and entertainment industry on such various aspects as social change as environmental movements, politics and elections, economy, local politics, and community. 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.

19. Fiat Lux Freshman Seminars. (1) Seminar, four hours. Enforced requisite: English Composition 1 or 1H. Designed to introduce students to higher level ability in writing. Satisfies Writing II requirement. P/NP or letter grading.

20. National Identity and Cultural Heritage. (5) Seminar, three hours. Designed for College Honors students. Enforced requisite: English Composition 2 or 2H. Designed to introduce students to higher level ability in writing. Satisfies Writing II requirement. P/NP or letter grading.

21. The Enlightenment. (5) Lecture, three hours; discussion, one hour. Designed for College Honors students. Required of all College Honors students. Enforced requisite: English Composition 3 or 3H or English as a Second Language 3E. Limited to College Honors students. Contemporary media literacy has spurred production of amateur remixes of songs, films, and other media texts. This seminar examines the history and employs Socratic method of asking questions, and why idea of human rights demands critical imagination. P/NP or letter grading.

22. Comparative Odyssey. (5) Seminar, three hours. Designed for College Honors students. Enforced requisite: English Composition 3 or 3H or English as a Second Language 3E. Limited to College Honors students. Contemporary media literacy has spurred production of amateur remixes of songs, films, and other media texts. This seminar examines the history and employs Socratic method of asking questions, and why idea of human rights demands critical imagination. P/NP or 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. Enforced requisite: English Composition 3 or 3H or English as a Second Language 3E. Limited to College Honors students. Contemporary media literacy has spurred production of amateur remixes of songs, films, and other media texts. This seminar examines the history and employs Socratic method of asking questions, and why idea of human rights demands critical imagination. P/NP or letter grading.

24. We Could Be Heroes: Race, Gender, and the Contemporary Hero Narrative. (5) Seminar, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 3E. Limited to College Honors students. Contemporary media literacy has spurred production of amateur remixes of songs, films, and other media texts. This seminar examines the history and employs Socratic method of asking questions, and why idea of human rights demands critical imagination. 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, transnational temporary thinking 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 doctor/patient 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. Enforced requisite: English Composition 3 or 3H or English as a Second Language 3E. Limited to College Honors students. Contemporary media literacy has spurred production of amateur remixes of songs, films, and other media texts. This seminar examines the history and employs Socratic method of asking questions, and why idea of human rights demands critical imagination. 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 ideas. Insight into way that human beings have historically and contemporaneously created and conceived of things of 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 through time related objects, heritage, and collections, and how these converge, diverge, and intersect. 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 The Twilight Zone to see that these artists forecast some of pressing issues facing humanity today: climate change and threat of ecological and planetary devastation; impact of artificial intelligence on human relationships; racism, exploitation and marginalization of peoples; consumerism, alienation and loneliness; theory and science of time travel, space exploration and colonization as means for human survival; medical technology in service of beauty, pleasure, and immortality; science fiction, and its remanifestations in Coetzee’s Foe and its remanifestations in Coetzee’s Foe and the fairy tale as represented by Cinderella and its various cross-cultural remanifestations. Satisfies Writing II requirement. P/NP or letter grading.

32. Understanding Ecology: Finding Interdisciplinary Solutions to Environmental Problems. (5) Seminar, four hours. Design for College Honors students. Exploration of how various natural systems of planet’s most important environmental issues, including global climate change, ocean acidification, biodiversity loss, deforestation, pollution, and declining freshwater resources and fisheries. Examination of both hard science and interdisciplinary solutions (social, political, educational) to environmental problems. P/NP or letter grading.

33. Poets in Age of Mass Incarceration. (5) Seminar, three hours. Examination of function of poetry in relation to mass incarceration. Examination of contemporary American carceral history and various tools that poets have used to challenge dichotomy of innocence and guilt, or to write poems about police violence, editing anthologies with creative works of incarcerated people, and teaching poetry in detention centers. Examination of how poets have structured their work to make legible what is otherwise unseen. In workshop component, students respond creatively to works discussed during seminars in order to better understand and confront one of the
largest social issues of our times. This generative practice allows for better development of portfolio of literary techniques to use while writing creatively. Students learn how to affirmingly critique work of their peers, and receive criticisms of their own works. Letter grading.

43W. Science, Rhetoric, and Social Influence. (6) Seminar, four hours. Enforced requisite: English Composition 3 or 3H 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’s beliefs and behavior. What is it about certain scientific arguments that allow them to influence public opinion? What are the 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 overfilling and mismanagement through 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, four hours. Enforced requisite: English as a Second Language 36. 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 complex relations between individual, local, and global interests as they shape and reflect reproduction and population policies, patterns of power, and exercise of power. P/NP or letter grading.

49. Evidence in Law, Science, History, and Journalism. (4) Seminar, four hours. Rigorous study of ways in which lawyers, scientists, historians, and journalists handle evidence, with aim of advancing cross-disciplinary inquiry to produce a common vocabulary and set of concepts that allow for discussion of evidentiary issues in differing fields of inquiry. P/NP or letter grading.

50. Creating Your Roadmap. (5) Seminar, three hours. Introduction to selected signature approaches to learning (interdisciplinary, experiential, integrative, illustrative, assimilative, transformative) and their application to college, personal, and professional development. May be repeated for a 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. Examination of Western art music, with focus primarily on music of the 17th through 19th centuries, and its role in society but ways in which Cossacks figure prominently in imagination of cultures they impacted over centuries, especially in film and literature. Study of Cossacks through these media to understand not just Cossack society but ways in which Cossacks have been viewed through paradigms of Polish, Russian, Ukrainian, Jewish, Ottoman, and western European cultures. P/NP or letter grading.

51W. Literature and Culture of the American South. (5) Seminar, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Designed for College Honors students. Examination of three works by William Faulkner, Russian-American writer, teacher, translator, lepidopterist, and composer of chess problems. Nabokov’s eclectic writings lend themselves well to precepts of cognitive criticism—way of understanding world through relationship between literacy and thought. Reading and writing about art and science built into course. Satisfies Writing II requirement. Letter grading.

53W. Nabokov and Reading Minds. (5) Seminar, four hours. Enforced requisite: English Composition 3. Designed for College Honors students. Examination of three works by Vladimir Nabokov, Russian-American writer, teacher, translator, lepidopterist, and composer of chess problems. Nabokov’s eclectic writings lend themselves well to precepts of cognitive criticism—way of understanding world through relationship between literacy and thought. Reading and writing about art and science built into course. Satisfies Writing II requirement. Letter grading.

54. Neuroscience and Psychology of Art and Biology of Aesthetics. (5) Seminar, three hours. Interdisciplinary approach to examine brain processes that determine the beauty, whether of faces, art works, or other subjects, is processed by brain and can be understood as neurolog-ical and psychological phenomenon. P/NP or letter grading.

55W. Body-Mind Literacy. (6) Seminar, four hours. Enforced requisite: English Composition 3. Designed for College Honors students. Examination of social and cultural assumptions about body and mind and how they are integrated and/or separated. Experimental and interdisciplinary approach. Satisfies Writing II requirement. Letter grading.

70A. Genetic Engineering in Medicine, Agriculture, and Developmental Biology 70. Historical and scientific perspective of genetics, and genomics. Study of these processes and their applications to health and disease, and the practical business of living. Satisfies Writing II requirement. Letter grading.
to children’s and young adult literature, novels, graphic novels, video games, film and television, and online writing. Use of multiple lenses to understand his work, including philosophy, cultural studies, and media studies. 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. May be applied toward honors credit for eligible students. Honors credit 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 credit noted on transcript. Letter grading.

90. Hollywood and Global Responsibility. (5) Seminar, three hours. Designed for College Honors students. American filmmakers have enormous power to reach global audiences. When they use this platform to make films, the themes and norms still connect with and affect audiences in most parts of the world, objects arise. Where is the line between free speech and free artistic expression and social responsibility? How can Hollywood become more globally responsible? What happens when Hollywood’s priorities change? How can government oversight be exerted to 20 students. Designed as adjunct to lower-division course. Through course readings, guest speakers, and interactive assignments, students will learn about their graduate school options and how to navigate application process. P/NP grading.

101I. Research Today: Sources, Tools, and Strategies. (2) Lecture, two hours; activity, two hours. Introductory to research process in digital age, offering opportunity to develop research skills through exploration of library and Internet resources, exposure to rare and unique materials, experimentation with digital tools, engagement with librarians and other experts, and interactive creation of research project proposal. Designed to prepare students for capstone or thesis experience in humanities or social sciences. P/NP grading.

101J. Mellon Mays Research Seminar. (2) Seminar, two hours. Limited to current Mellon Mays Undergraduate Fellows and designed to support them in their current research projects and graduate school preparation. Topics include specifying research questions, producing, presentations, abstracts, and posters, as well as graduate school application materials. May be repeated for maximum of 10 units. P/NP grading.

90. Hollywood and Global Responsibility. (5) Seminar, three hours. Designed for College Honors students. American filmmakers have enormous power to reach global audiences. When they use this platform to make films, the themes and norms still connect with and affect audiences in most parts of the world, objects arise. Where is the line between free speech and free artistic expression and social responsibility? How can Hollywood become more globally responsible? What happens when Hollywood’s priorities change? How can government oversight be exerted to 20 students. Designed as adjunct to lower-division course. Through course readings, guest speakers, and interactive assignments, students will learn about their graduate school options and how to navigate application process. P/NP grading.

Upper-Division Courses

101A. Student Research Forum. (2) Lecture, two hours. Designed to promote deep engagement in university research, including instruction on securing research opportunities, skills necessary for research and professional success, research, exploring research internships on and off campus, and communication of research findings. P/NP grading.

101B. UCLA Undergraduate Science Journal. (2) Seminar, two hours. For students on editorial board of annual UCLA Undergraduate Science Journal, including study of writing in sciences and honing of editing and production skills. May be repeated for maximum of 10 units. P/NP grading.

101C. UCLA Undergraduate Journal for Humanities and Social Sciences. (2) Seminar, two hours. For students on editorial board of annual UCLA Undergraduate Journal for Humanities and Social Sciences. Includes study of writing in various disciplines and honing of editing and production skills. May be repeated for maximum of 10 units. P/NP grading.

101D. Counseling Multicultural Communities. (2) Seminar, two hours. Study of issues of culture and identity in cross-cultural counseling, including development of working model. P/NP grading.

101E. Leading Undergraduate Seminars. (1) Seminar, one hour. Limited to students who have been accepted into Undergraduate Student Initiated Education (USE) and willing to participate in seminars and discussion groups that are integral to developing seminars and development of skills to become effective student facilitators. Practical teaching strategies and techniques, as well as skills in oral, organizational, and technological issues confronted by new instructors. Discussion of key topics, followed by discussion of syllabi that students are developing for their seminars and conducting of micro-teaching presentations.

Ques. speakers expand on topics that arise from class discussions. May be repeated once for credit. P/NP grading.

101F. Integrity in Research. (2) Seminar, two hours. Limited to students in CARE, HHMI, MARC, and UC Leds programs. Discussion about integrity in research, current trends in field, and important ethical issues that impact scientific investigation. P/NP grading.

101G. Graduate School Preparation. (2) Seminar, two hours. Limited to AAP students. Designed to help AAPP students familiarize themselves with academic disciplines they would like to pursue in graduate school. Through course readings, guest speakers, and interactive assignments, students will learn about their graduate school options and how to navigate application process. P/NP grading.

101I. Research Today: Sources, Tools, and Strategies. (2) Lecture, two hours; activity, two hours. Introductory to research process in digital age, offering opportunity to develop research skills through exploration of library and Internet resources, exposure to rare and unique materials, experimentation with digital tools, engagement with librarians and other experts, and interactive creation of research project proposal. Designed to prepare students for capstone or thesis experience in humanities or social sciences. P/NP grading.

101J. Mellon Mays Research Seminar. (2) Seminar, two hours. Limited to current Mellon Mays Undergraduate Fellows and designed to support them in their current research projects and graduate school preparation. Topics include specifying research questions, producing, presentations, abstracts, and posters, as well as graduate school application materials. May be repeated for maximum of 10 units. P/NP grading.

101K. Preparing for Post-UCLA Success: Fellowships, Graduate School, and More. (2) Seminar, two hours. Prepares students to achieve goals beyond UCLA. Participants reflect on values and interests, and learn about post-baccalaureate opportunities to graduate school, scholarships, 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.

101L. Research Revealed: Humanities, Arts, and Social Sciences. (2) Seminar/discussion, two hours. Introduction to wide array of research practices in humanities, arts, and social sciences, as studied by Undergraduate Research Center—Humanities, Arts, and Social Sciences (URC-HASS) with talks from various UCLA faculty, student researchers, and representatives from campus resources. Students gain better understanding and appreciation of role of research universities and how research is conducted and knowledge sharing and appreciation of role of research universities. P/NP grading.

101M. Careers in Libraries and Archives. (2) Seminar, two hours. Focuses on careers in libraries and archives, including: internship sites; qualifications and opportunities; and networking. P/NP grading.

101N. Arts and Social Sciences. (2) Seminar, four hours. Examination of ways in which arts and social sciences have meaning today. Consideration of obelisk, Greek statues of Washington, D.C., inspired by memory and ruins of classical antiquity, and how these evocations have meaning today. Consideration of obelisk, Greek temple, and Pantheon and American monumental counterparts, Washington Monument, Lincoln Memorial, and Jefferson Memorial. Examination of ancient inspiration, historical background, architectural design, and art of these monuments in context of shifting public ideologies and local politics in Washington, D.C. Fundamental process of development. P/NP or letter grading.

101O. Ancient Rome and the Monuments of Washington, D.C. (5) Seminar, three hours. Exploration of public buildings, marble monuments, and heroic statues of Washington, D.C., inspired by memory and ruins of classical antiquity, and how these evocations have meaning today. Consideration of obelisk, Greek temple, and Pantheon and American monumental counterparts, Washington Monument, Lincoln Memorial, and Jefferson Memorial. Examination of ancient inspiration, historical background, architectural design, and art of these monuments in context of shifting public ideologies and local politics in Washington, D.C. Fundamental process of development. P/NP or letter grading.

101P. Living Consciously: Philosophy in Everyday Life. (5) Seminar, three hours. What does it look like when you consciously inform your everyday life with your own mindful developed way of seeing world? Through readings, discussions, exercises, and writing, explore practice of and ensuing results of living consciously. Students develop and articulate their personal philosophies through introspectively and personally exploring various ways of thinking about and questions of value. Critical thinking and exploring how social world influences and creates philosophies by which we live (whether we know it or not). Letter grading.

101Q. Marxist and Post-Marxist Approaches to Cultural Studies. (4) Seminar, four hours. Examination of Marxist and post-Marxist approaches to study of culture, including classic texts, theoretical and empirical works, and the Marxist roots of postmodernism. P/NP or letter grading.

110. stress and coping. (4) Seminar, four hours. Examination of research and theory on stress and coping, with emphasis on physical and mental conse-quences, stressors and moderators, and both social support and personality in coping strategies. P/NP or 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 hyperconnected world via Internet. Topics include transformations of social relationships online, virtual versus real communities, identity and its creations, trust and deception, politics and social media, surveillance and privacy, economics, intellectual property, culture, education, and knowledge, and digital wellness. 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 in between 1588 and 1688 through prism of evolving political, philosophical, theological, sexual, economic, and scientific practices of that day and vice versa to understand poetry in cultural and historical context. Students research wide range of subjects from alchemy to zoology and become class resource on some relevant topic such as Renaissance medicine, Calvinism, 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.


117. London and Culture of Male Homosexuality, 1870 to 1900. (5) Seminar, four hours. Designed for College Honors students. Examination of homo-sexual subculture that thrived in London during period when brilliant Irish writer Oscar Wilde (1854 to 1900) was setting the stage of acts of pederasty and sodomy. Study of Wilde trials, cultural consequences of Labouchere Amendment criminalizing male homosexual acts, some of Wilde’s writings, and exciting new works to light offerings into links that gay men in London had with theatrical world, prostitution, aristocrats, and underground publishing. 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 sexism, racism, and other forms of discrimi nation. This course will examine movie narratives that turn magnifying glass around and exposes Hollywood’s own severe problems when it comes to racial and cultural diversity. Exploration of differing media narratives will help students research widely the phenomenon of 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.

M120. Art and Performance: Interdisciplinary Approach to Collections of Getty Center. (4) Same as Theater M109.) 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 age is examined in musical and dramatic performance. Letter grading.

121. Psychoanalysis before Freud, and a Little After. (5) Lecture, three hours; discussion, one hour. Examination of ways of thinking that have developed conceptions of themselves through history from early civilizations through Middle Ages, Renaissance, Enlightenment, modern, and post-Freudian visions; investigation of various interactions of these different conceptions in present day. P/NP or letter grading.

122. Chemical Communication across Tree of Life. (5) Seminar, three hours; discussion, two hours. Designed for College Honors students. Chemical communication governs relationships among different biological entities, across entire tree of life from viruses to Homo sapiens. Biosynthesized devices are using knowledge gleaned from chemosensory systems to change face of robotics, with wide applications in consumer industries, health care and, defense and security. Chemical, physical, and biological principles to be combined as pedagogical tools for teaching larger lesson in science. Synthesis of information and concepts and development of hypotheses and conclusions. P/NP or letter grading.


124. Midwives, Mothers, and Medicine: Perspectives on History of Childbirth. (4) Seminar, three hours. Using examples from history and anthropology, examination of variety of practices associated with child birth over time and across cultures, addressing such themes as shifting relations 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. Introduction to theory and practice of conflict resolution, with emphasis on the latter. Examination of historical, cultural, political, and social justice mechanisms, from international criminal tribunals, special courts, and International Criminal Court to indigenous approaches as community justice systems, examining various conflict resolution, 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. Examination of historical and contemporary movements of resistance, the role of violence across Asia and Pacific Islands which forces such as colonialism, globalization and globalized media. Role of economic, cultural, political, and organizational places such as American Samoa, Guam, Hawaii, Marshall Islands, Philippines, Okinawa, and South Korea. Exploration of how various groups of people have responded to these forces to have better understanding of how race, empire, and social justice have contributed to development of diverse and diverse areas and peoples. P/NP or letter grading.

127. Citizenship, Leadership, and Service. (4) Seminar, three hours; fieldwork, three hours. Interactive performance and visual experience of architect, citizenship, leadership, and service, including both theoretical 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) Seminar, four hours. Designed for College Honors students. Application of venerable humanist insights and social scientific thinking to contemporary social phenomenon of human laughter and humor. While Aristotle and Hobbes thought humor was bad for society, Locke and Bahktin would have disputed them for different reasons. Integration of their ideas and ideas of evolutionary anthropology and biology, as well as research in social and biological science, to critically evaluate how social scientists investigate mass media political satire of today. Letter grading.

129. Research in Psychology and Legacy of John Watson. (5) Seminar, four hours. Designed for College Honors students. Exploration of life and work of John Watson, with particular attention to his pyramid of success, how he was viewed and is revalued by his peers. Methodological differences between his psychology and academic research. His philosophical approach as lens through which to explore research in fields of sport and education psychology. Connection of Watson to legacy of America and global influence. Use of this knowledge for understanding what is pyramid of success (and other aspects of his coaching philosophy) to research in psychology. P/NP or letter grading.

130. Beyond the Creed: Activists, Experts, and Health Care. (5) Seminar, four hours. Study of how activists, experts, and political movements shape public health policy and biomedical science. What are best ways for public health and biomedical science to respond to pandemics? Analysis of scientific, social, medical, economic, and political aspects of health inequalities, drug pricing, disability policy, as well as the role of scientific enterprise in formulating policy 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. Global Dimensions of Education and Inequality. (5) Seminar, three hours. Examination of role that education plays in maintaining and perpetrating poverty and inequality. Examination of how various reform strategies that have been proposed to spur development in human capital and well being are impacting poor countries and poor people who reside in rich and poor countries. Examination of how different countries have used education to promote social 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. Spanning of academic disciplines 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, and race/nation identities 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 adopted and adapted some of these same ideas to 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 field methods course but one intended to convey a 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 is reform and is also wary of radical upheavals. Political culture of ancient Greek democracy made possible two things: awareness of the strengths and weaknesses of democracy and the concept of progress and constant reform and is also wary of radical upheavals. Political culture of ancient Greek democracy made possible two things: awareness of the strengths and weaknesses of democracy and the concept of progress and constant reform and is also wary of radical upheavals. Political culture of ancient Greek democracy made possible two things: awareness of the strengths and weaknesses of democracy and the concept of progress and constant reform and is also wary of radical upheavals. Political culture of ancient Greek democracy made possible two things: awareness of the strengths and weaknesses of democracy and the concept of progress and constant reform and is also wary of radical upheavals.
135. Poetry and Society in England, 1588 to 1688. (5) Seminar, four hours. Reading and discussion of poems to comprehend meaning and place in configuration of rapid transformation society. Tensions change in that culture, and lives of authors, these works helped negotiate. How and why metaphorical and cavalier modes emerge in period of intense struggle. How and why metaphorical and cavalier modes are found within these modes. Evidence offered about personal psychology, gender politics, and status competitions of this period and its poets, especially Donne, Herbert, Jonson, Carew, and Marvell. What kind of work were the poems doing? How, and how well, were they doing it? And, what kinds of work should we do on them now? P/N or letter grading.


137. Living Dharma in America: Perspectives on Race and Buddhism. (5) Seminar, three hours. Deconstruction of and deeper histories behind images of Buddhism such as bald, saffron-robbed monks; or temples with scent of incense; serene Zen meditation centers; or popular Buddhists from Richard Gere to Thich Nhat Hanh to the Dalai Lama. P/N or letter grading.

138. Empire, Border Crossing, and Multiethnic Storytelling. (5) Seminar, four hours. Exploration of evolution of postcolonial studies through contemporary works of multiethnic American literature. How do our primary texts of fiction or creative non-fiction question literary conventions of allegedly mainstream Euro-American literature? What manifestations of empire, diasporic mobility, and gender identity unite different and disparate literary traditions? What potential for unification exists in these traditions? What meditation on identity and intersectionality do our creative and critical texts offer as they intersect notions of race, class, gender, sexual identity, ethnicity, nationality, and migration? What aesthetic or critical possibilities does multiethnic American storytelling open up for future of postcolonial and transnational studies? P/N or letter grading.


140. Dominants and Subordinates in Social Psychology of Privilege and Oppression in Public Education. (6) Lecture, four hours; discussion, one hour; tutoring, three hours. Study of social arrangements and temporary inequalities in contemporary American public schools. Exposition of entrenched inequalities tend to become permanent. Field component included. P/N or letter grading.


142. Free Will and Moral Responsibility: From Neuroscience to Philosophy and Back. (5) Seminar, four hours. Survey of motivations, methods, and conclusions of neuroscientific and psychological investigations of free will. Arguments that humans are not free when they choose and of philosophical arguments about what is required for freedom and what is required for responsibility. Discussion of implications of findings and how findings of free will will inform neuroscience and whether and how experiments could be designed and carried out to better correspond with philosophical and legal debate on free will. P/N or letter grading.

143. Latin America 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 scope of recent migration; legal status of refugees, asylees, and migrants; federal, state, and local immigration lawmaking; and how race, gender, and sexuality impact and are impacted by immigration policies (e.g., legalization, border militarization, border patrol and surveillance) and politics (from voting to activism). P/N or letter grading.

144. International Development: Using Your Major for Doing Well and Doing Good. (5) Seminar, three hours. The adoption of United Nations Sustainable Development Goals (2015-2030) for addressing extreme poverty, disease, environmental degradation, gender inequities, unemployment, and other problems affecting people across the globe. Sustainability entails development solutions that endure and engage local people. The aim is to leverage local capacities to improve living conditions consistently. Students address questions such as: How do our major relate 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/N or letter grading.


146. Imagining Global Climate Change. (5) Seminar, three hours. Designed for College Honors students. Global and comparative study of regions in front line of climate change, such as tropical islands and poles that visibly confront sea level rise and glacial melt, through study of visual arts, literature, and film. Study of authors and artists from U.S., Australia, New Zealand, Guyana, Mexico, and Maldives to examine threat of climate change in its complex cultural imagination. Letter grading.

147. The Anthropocene: An Archaeological Perspective. (5) Seminar, four hours. Examination of new geological period, informally labeled the Anthropocene, in which environment is profoundly impacted by human activities. Evidence that anthropogenic impacts have affected conditions on Earth during past two centuries, including loss of biodiversity, burning of fossil fuels, ocean acidification, and ozone depletion. P/N or letter grading.

148. Simulating Society: Exploring Artifical Communities. (5) (Same as Sociology M118.) Seminar, three hours; computer laboratory, one hour. Examination of social behavior through computer simulations of behavior in artificial communities. P/N or letter grading.

149. Art and Trauma. (5) Seminar, three hours. Examination of how slavery, war, psychiatric institutionalization, and child sexual abuse shaped singular artistic visions. Depictions of severe trauma can be expressed in several ways—external event (e.g., war), internal psychological process (e.g., depression), or symbolic unfolding (e.g., death). Manner in which trauma is embedded in brain and stored in memory is also critical. Exploration of research on memory and trauma, post-traumatic stress disorder (PTSD), and how severe trauma impacts brain. Studio component in form of individual and group projects to offer more tangible insight into process of art and trauma. P/N or letter grading.

150. Solo Performances and New Media Storytelling for Artists and TED Talkers. (5) Seminar, three hours. Designed for College Honors students. Creation and presentation of original one-person performance speech. Development and writing of original script through exploration of personal experiences and subject matter. Addressing of physical or emotional strengths and weaknesses in relation to creative processes of playwriting and performing. Breakdown, rethinking, and synthesis of one-archer plays and Western performances to benefit writing and performance. Identification and exploration of student’s unique personal voice in order to establish clear and creative point of view in developing or performing their story. Analysis of dramatic structure, dramatic action, and creation of believable and interesting character. Focus, concentration, imagination, and relaxation during solo performance and maintaining professionalism and discipline. P/N or letter grading.

151. Victorian Sexual Scandals. (5) Seminar, three hours. Designed for College Honors students. Introduction to four major sex scandals that took place in 19th century London and ways in which institutions create frameworks for understanding dissident sexualities and gender identities, and relation between sexual scandals and legal ac- tions. Sodomy trial of Ernest Boulton and Frederick Park. Examination of extent of queer networks among gay men, transgender individuals, and their apparently straight admirers during time of Offences against the Person Act 1861. The Maiden Tribute of Modern Bab-ylon, in which journalist W. T. Stead exposed extent of sexual trafficking of children. Series of murders in which bodies were transferred to women who were sex workers were mutilated and dismembered, attributed to Jack the Ripper. Trials of Oscar Wilde who was sent to jail for two years in solitary confinement with hard labor for gross indecency.

152. Past People and Their Lessons for Our Own Future. (5) (Same as Anthropology M148 and Geog- raphy M142.) Lecture, two hours; discussion, two hours. Examination of modern and past people that may inform and produce new fates, as basic decision for how other modern people are coping or failing to cope with similar issues. Letter grading.


154. Hollywood and Divided America. (5) Seminar, three hours. Exploration of role that media images and stories play in current political and cultural debates in U.S. Work and television shows and other case studies to explore entertain- ment industry’s impact on current discord in U.S. Discus- sion of motives of artists who speak out and argu- ments of their detractors. Consideration of whether Hollywood can still be positive force in divided America. P/N or letter grading.

155. Political Opposition in Early Modern Europe. (5) Seminar, three hours. Designed for juniors/seniors. Role of great powers in Middle East, with emphasis on American, Soviet, and West European policies since 1945. P/N or letter grading.


157. International Relations of Middle East. (4) (Same as Political Science M132B.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Focus on Middle East region, and its role in contemporary international relations. P/N or letter grading.

158. Feminism, Art, and Metaphors of Trauma. (5) Seminar, three hours. Exploration into visual meta- phors of remembrance. Exploration, across centuries, of artworks of feminist artists who have confronted: war; death; relational trauma; sexual violence; casualties of war, racial and social in- justice, and trafficking of women and girls. Focus on visual manifestations of anguish, persistence, and mourning that pose metaphors as artis- tic works. Topics explored through group and individual studio art projects designed to give tangible insights into emergence of artworks manifested in wake of tragedy. P/N or letter grading.


166. Stories of Cultural Distance and Imposed Ascription. (5) Seminar, three hours. Examination of how stories re-enact experiences of people in zones of cultural difference and conflict. Focus on Causasian region and Empire of the 16th century Russian imperial expansion. P/NP or letter grading.


173C. Liberty, Government, and Society in European Thought. (5) Seminar, three hours. Examination of great works of European thought from 17th through 18th century, including works of John Locke, Montesquieu, Voltaire, and Rousseau. Emphasis on legal, social, and moral pre-conditions of liberty. P/NP or letter grading.

173B. Nature, Culture, and Capitalism in European Thought. (5) Seminar, three hours. Examination of great works of European thought from 17th through early 20th century, including works by Thomas Huxley, Adolphe Smets, and Thomas Payne, with emphasis on legal, social, and moral pre-conditions of liberty. P/NP or letter grading.


172. French Thinkers of Society. (5) Seminar, four hours. In-depth study of distinguishing perspectives of French theorists who wrote on society and its impact on individuals. Emphasis on key ascesis, Nietzsche, Foucault, and contemporary thinkers such as Michel Foucault, Michel de Certeau, and Pierre Bourdieu, and two postmodern theorists, Guy Debord and Jean Baudrillard. P/NP or letter grading.

173. American Political Thought from Revolution to Civil War. (5) Seminar, three hours. Exploration of nature of American political thought between Revolution and Civil War. Topics include nature of rights, федерализм, constitutionalism, and democracy. P/NP or letter grading.

174. Human: Identity in Age of Genomics and Neuroscience. (5) Same as Disability Studies M183.S and Society and Genetics M183.S. 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 identities) to Mad Pring movement emphasis on mental diversity. Emphasis on philosophical questions regarding personal identity, consciousness, selfhood and mind-body relation- ship are investigated through consideration of cases such as dissociative identity disorder, trauma, psychosis, autism, and depression. 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 discuss selected USIE seminar topic, conduct preparatory research, and begin preparatory work for project. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SA. 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.

178. Secret Coup, Imperial Wars, and American Democracy since World War II. (5) Seminar, three hours. Study of U.S. involvement, both covert and overt, in expedientary wars since World War II, including involvement in Vietnam, Korea, Cuba, Iran, Guatemala, Nicaragua. Political implications of these actions for vitality of American democracy. P/NP or letter grading.


180B. Structure, Patterns, and Polyhedra. (5) Same as Chemistry M117T. 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 important development in making of Western power and hegemony: rise of new science and its relationship first to Britain, then European, Industrial Revolution. Emphasis on scientific method, epistemology, and environmental history. 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 discuss selected USIE seminar topic, conduct preparatory research, and begin preparatory work for project. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SA. 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. 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 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.

193A. 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.

193B. 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 Scholars. (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 college course. May be repeated for credit. P/NP or letter grading.
**Upper-Division Courses**

CM124. Machine Learning Applications in Genetics. (4) (Same as Computer Science CM124.) Lecture, four hours; discussion, one hour. 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 basic 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 as computational 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 Genetics. (5) (Same as Society and Genetics M102.) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 4. Survey of key technologies that have led to successful application of genomics to biology, with focus on theory behind specific genome-wide technologies and their current applications. Concurrently scheduled with course C224C. P/NP or letter grading.

CM224. Machine Learning Applications in Genetics. (4) (Same as Computer Science CM224.) Lecture, four hours; discussion, two hours; outside study, six hours. 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 basic 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 as computational problems and then solving those problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM124. Letter grading.

CM226. Machine Learning in Bioinformatics. (4) (Same as Bioinformatics CM226 and Computer Science CM226.) Lecture, four hours; outside study, eight hours. 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 Engineering 131A, Mathematics 170A, or Statistics 100A. Familiarity with probability, statistics, linear algebra, and algorithms expected. Designed for students as well as students from basic sciences and medical school. Biology has become data-intensive science. Bottleneck in being able to make sense of biological problems has shifted from traditional 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.

**Graduate Courses**

M203. Stochastic Models in Biology. (4) (Same as Bioinformatics M203.) Lecture, four hours. Requisite: Mathematics 210A 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 Bioinformatics M207A and Biostatistics M237.) Lecture, three hours; laboratory, one hour. Requisite: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, disease association and quantitative genetics. Laboratory: experimental sequence analysis, and human genome, mapping and identification of disease causing mutations. S/U or letter grading.

M207B. Applied Genetic Modeling. (4) (Same as Bioinformatics M207B and Biostatistics M237.) Lecture, three hours; laboratory, one hour. Requisite: Biostatistics 207 (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 methods, including 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.

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 Phylogenetics. (4) (Same as Biostatistics CM239.) Lecture, three hours; laboratory, one hour. Preparation: undergraduate course in statistics and probability. Theoretical models in molecular evolution focusing on phylogenetics. 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.

CM226. Machine Learning Applications in Genetics. (4) (Same as Bioinformatics CM226 and Computer Science CM226.) Lecture, four hours; discussion, one hour. 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. 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 as computational problems and then solving those problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM124. Letter grading.

M229S. Seminar: Current Topics in Bioinformatics. (4) Lecture, three hours; tutorial, to be arranged. Students select instructor and design of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SA. 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 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 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.

199. Special Studies in Human Genetics. (2 to 8) Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

**M236A. Advanced Human Genetics A: Molecular Aspects.** (4) Lecture, three hours. Recommended prerequisites: prior knowledge of basic concepts in molecular biology and genetics. Advanced topics in human genetics related to molecular genetics and relevant technologies. Topics include human genome, mapping and identification of disease-causing mutations, transcriptions, proteomics, functional genomics, epigenetics, and stem cells. Reading materials include original articles and reviews or books chapters. Letter grading.

236B. Advanced Human Genetics B: Genetics and Genomics Aspects. (4) Seminar, four hours; discussion, four hours. Human genetics is fundamental science that studies structure and function of 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 processes 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. Overview of human genetics through examination of selection of papers that highlight each of these themes. Letter grading.

C236C. Societal and Medical Issues in Human Genetics. (5) Lecture, three hours; discussion, two hours. Course is now known. Consideration of how this knowledge impacts concepts of ourselves as individuals and of our place in biological universe, concepts of race/ethnicity and gender, ability of DNA-based forensics to identify specific individuals, ownership and commodification of genetic information, and implications for human disease processes. Laboratory: experimental sequence analysis, and human genome, mapping and identification of disease causing mutations. S/U or letter grading.

C244. Genomic Technology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 4. Survey of key technologies that have led to successful
430. Clinical Applications of Cytogenetics and Molecular Techniques. (1 Lecture, one hour. Cytogenetics and molecular laboratory techniques to diagnose human genetic disorders. Topics include types of abnormalities seen in human genetic disorders, phenotypic 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. (Fieldwork, three to four hours; discussion, one hour. Limited to Genetic Counseling Students. First fieldwork rotation to establish basic skills in genetic counseling. 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.)

431B. Fieldwork. (Fieldwork, 35 hours. Requisite: course 431A. Limited to Genetic Counseling Students. Students use intermediate genetic counseling skills with direct patient contact in different clinical settings. Students are supervised by certified genetic counselors and medical geneticists. S/U grading.)

431C. Fieldwork. (Fieldwork, 15 to 20 hours; discussion, one hour. Requisite: course 431B. 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. (Clinical, 15 to 20 hours; discussion, one hour. Enforced requisite: course 431C. 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.)

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 (Asian Languages and Cultures)
Christopher M. Stevens, PhD (European Languages and Transcultural Studies)
Brent H. Vine, PhD (Classics)

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 politics), and how these are reflected in the textual traditions of the ancient Indo-European languages.

Graduate Major

Indo-European Studies
MA, CPhil, PhD

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 illuminating many paths of discovery at UCLA. P/NP grading.)

M20. Visible Language: Study of Writing. (8 (Same as M20, Near Eastern Languages 220, 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 earlier 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 semiotic 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.)

M70. Language and Evolution. (8 (Same as Linguistics M4.) Lecture, four hours; discussion, one hour (when scheduled). Basic concepts and tools of evolutionary theory and linguistics relevant to how organisms with linguistic abilities could evolve, and how particular languages, as cultural artifacts, survive and change so rapidly. 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.)

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

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) Requisite: course 131. 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 in 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 impact perception of food? How do myths and narratives revolving around food function in different cultures? Students explore history of food words and learn how to analyze food 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. (5) (Same as Linguistics M150.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: Linguistics 1 or 20. Indo-European languages (ancient and modern), including their relationships, chief characteristics, writing systems, and sociolinguistic contexts; nature 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.

C160. Indo-European Comparative Mythology and Poetics. (4) Seminar, three hours. Preparation: familiarity with at least one ancient Indo-European language, comparison of major Indo-European mythological 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 other traditions; literary continuations of mythopoetic material. Concurrently scheduled with course C260. P/NP or letter grading.

M168. Introductory Hittite. (4) (Same as Ancient Near East M168.) Lecture, two hours; recitation, one hour. 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 in transliteration. 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 credit. P/NP or letter grading.

Special Courses


M222A-M222B. Vedic. (4–4) (Same as Iranian M222A-M222B and South Asian M222A-M222B,) Lecture, three hours. Preparation: knowledge of Sanskrit equivalent to South Asian 110C. Characteristics of Vedic dialect and readings in Rig-Vedic hymns. Only course M222B may be repeated for credit. S/U or letter grading.


250A-250B. European Archaeology. (4–4) Seminar, three hours. Studies in ancient European archaeological material and their relationships to Near East, Western Siberia, and Central Asia. May be repeated for credit. In Progress (250A) and S/U or letter (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-European mythological 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 other traditions; literary continuations of mythopoetic material. Concurrently scheduled with course C160. P/NP or letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar. 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.


597. Preparation for PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.


Graduate Courses


Information Studies

SCHOOL OF EDUCATION AND INFORMATION STUDIES

207 GEISE Building
Box 951520
Los Angeles, CA 90095-1520

INFORMATION STUDIES

Information Studies 310-825-5269

Jean-François Blanchette, PhD, Chair

Faculty Roster

Professors
Johanna R. Drucker, PhD (Martin and Bernard Breslauer Professor of Bibliography)
Jonathan Furner, PhD
Anne J. Gilliland-Swetland, PhD
Kimberley Gomez, PhD
Louis M. Gomez, PhD
Christopher M. Kelly, PhD
Leah A. Lievrouw, PhD
Ellen J. Pearlstein, MA
Nathaniel Srinivasan, PhD

Professors Emeriti
Marcia J. Bates, PhD
Howard A. Besser, PhD
Christine L. Borgman, PhD (Presidential Professor Emerita of Information Studies)
Clara M. Chu, PhD
Robert M. Hayes, PhD
Beverly P. Lynch, PhD
Mary Niles Maack, DLS
John V. Richardson, PhD
Elaine Svenonius, PhD
Diana M. Thomas, PhD
Virginia A. Walter, PhD

Associate Professors
Jean-François Blanchette, PhD
Michelle L. Caswell, PhD
Gregory H. Leazer, DLS
Safiya U. Noble, PhD

Assistant Professors
Robert D. Montoya, PhD
Miriam Posner, PhD
Sarah T. Roberts, PhD
Shawn G. VanCour, PhD

Lecturers
Esther S. Grassian, MLS
Candice A. Mack, MLIS
Cynthia L. Mediavilla, PhD
Luiz H. Mendes, MLIS
Eva Mitnick, MLS
Linda K. Tadic, MLIS
Jilll C. Wallis, PhD

Adjunct Assistant Professor
Susan M. Allen, PhD

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 de-
development, archives, preservation, and catalog. Whether students choose to pursue a mas- ter’s degree or a doctorate degree, they gradu- ate with a broad understanding of both theory and practice.

For information about the department and pro- grams, see the department website.

Career Prospects

Students with Master of Library and Informa- tion Science (MLIS) degrees go on to careers as librarians, archivists, and information profes- sionals in a variety of organizational settings. The Doctor of Philosophy (PhD) focuses on the preparation of scholars in the field.

Graduate Majors

Information Studies PhD

Program Requirements

Official, specific degree requirements are de- tailed in program requirements for UCLA grad- uate degrees, available at the Graduate Divi- sion 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

Program Requirements

Official, specific degree requirements are de- tailed in program requirements for UCLA grad- uate degrees, available at the Graduate Divi- sion 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, five hours. Designed for undergraduate students. 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 information markets and economies; power of cultural and media institutions; state inter- ests in information; information, conflict, and warfare; information organization, classification, and access; power and information 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 illuminating many paths of discovery at UCLA. P/NP grading.

20. Digital Cultures and Societies. (5) Lecture, five hours. Designed for undergraduate students. Exam- ination of social and cultural contexts of global spread of digital networks and systems. Exploration of ethical, infrastructural, and political questions raised at inter- section of technology, data mining, data science, and cultural politics; social media revolutions, indigenous and non-Western uses of technology, cross-cultural design, digital media literacies, and more. Letter grading.

30. Internet and Society. (5) Lecture, five hours. De- signed for undergraduate students. Examination of in- formation technology in society, including Internet, World Wide Web, search engines (e.g., Google, Yahoo, Lycos), retrieval systems, electronic publishing, and distribution of media, including newspapers, books, and music. Exploration of many of these technologies, social, cultural, and political context in which they exist, and how social relationships are changing. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Lim- ited 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. P/NP or letter grading.

97. Variable Topics in Information Studies. (4) Sem- inar, four hours. Designed for freshmen/sophomores, but open to all undergraduate students. Exploration of changing set of basic concepts and issues related to 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 (su- pervised by faculty work), three hours; discussion, one hour per week. 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

C115. Introduction to Information Literacies. (4) Lecture, four hours. Foundational introduction to current and historic role and impact of information lit- eracy—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, ac- cess to, use, and assessment of information, currently and historically; developing and refining information researching questions; conducting effective informa- tion researching; distinguishing among and critically evaluating research methods 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 in support of equity and inclusivity; and designing and creating online educational learning objects as positive contributions to ad- dressing social/environmental issues. Concurrently scheduled with course C215. P/NP or letter grading.

116. Data and Ethics in Society. (5) Seminar, four hours. Examination of the intersection of digital, so- cial, political, and ethical ramifications of choices we make at different stages in social construction of data. Includes cultivating critical analysis of processes of data collection, data mining, data storage, and de- ployment of data affected by variety of different com- munities, publics, nation-states, and individuals. Stu- dents learn basics of ethical and socially just frame- works to assess range of data-driven products and platforms. Students gain understanding of social, his- torical, and political dilemmas 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 pop- ular culture. Students generate media repre- sentations, question process of normalizing dominant ideologies, and create counter-hegemonic media messages. Through application of critical media lit- eracies framework, students examine the notion of literacy to be more inclusive of all types of texts; and deepen their abilities to question power of word, image, and sound-bite to represent social and environmental in- justice. Letter grading.

M135. Environmental Justice through Lens of Media and Education. (5) (Same as Education M135.) Seminar, four hours. Exploration of human relationship- ships with natural world, historically and today. Stu- dents take critical look at ways information has been shaped, audiences positioned, and movements ma- nipulated to promote commercial interests over public good. Exploration of progressive movements that have in past challenged—and currently challenge—neoliberal agendas, expressive policies, and unsustain- able practices. Letter grading.

139. Letterpress Laboratory. (1) Laboratory, one hour. Hands-on printing experience in letterpress shop de- signed to give students in information studies, design, or other disciplines understanding of printing process. Basic instruction provided, and students work on group project for duration of term. May be repeated twice. P/NP grading.

180. Special Topics in Information Studies. (4) Lecture, three hours; discussion, one hour. Designed for seniors/juniors. Selected topics or issues related to social, cultural, economic, or political aspects of in- formation 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 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 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 885 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 stu- dents. Honors content noted on transcript. P/NP or letter grading.

199. Directed Research in Information Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Su- pervised individual research or investigation under guidance of faculty mentor paid. May be repeated for credit. 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, inte-
208. Scholarly Communication and Bibliometrics. (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 flow of ideas through published record, whether in print, electronic form, or other media. Letter grading.

209. Perspectives on Information Societies. (Seminar, three and one half hours. Survey of theoretical perspectives on emergence of late-20th- and early-21st-century information societies from range of disciplines. Topics include nature of social change and development, theories of modernity and postmodernity, and social, economic, technological, and cultural shifts surrounding information technologies and rise of information as commodity. Presentation of work of key writers and scholars in areas of information society policy and issues. Letter grading.

210. Values and Communities in Information Profession. (Lecture, three and one half hours. Question of what diversity and culture mean in era of distributed networks and massive technological diffusion loops. Part of this involves probing and contesting knowledge-in-knowing, with differing ontologies. It is now widely accepted that global cultures and communities differ in ways they practice knowledge, understanding, and manifestation. Material and symbolic boundaries around culture and community has become increasingly complicated, as culture becomes increasingly mediated and community has elements of local place, group, and personal. Traditional, economic, and cultural identities being shaped in global media culture? How does this shape nature of power functions? How does this impact heritage, economy, politics, decision making, and accountability in information organizations. Review and implementation of various methods appropriate to design of assessment and evaluation studies. Letter grading.

211. Artifacts and Cultures. (Lecture, two hours; discussion, two hours. Exploration of social, cultural, and technical practices through which meanings, memories, ideas, and knowledge-claims are generated. Concepts are recorded, collected, and appropriated; they are sometimes forged, stolen, or subverted and are often shared, juxtaposed, exhibited, communicated, interpreted, recombined, or repurposed. Their formats may be oral and written, verbal and pictorial, and visual and, inscriptive and performative. Artifacts are single-medium and multimedia, static and dynamic, numerical and narrative, scholarly and popular, and printed and digital. They constitute documents, records, data sets, and cultural objects through which information and evidence are authored, published, collocated, exchanged, and preserved. Presentation of these artifacts and their properties, types, and relationships: media, formats, genres, materials, states, contents, components, subjects, structures, functions, aesthetics, production, costs, affordances, and use values. Letter grading.

212. Values and Communities in Information Professions. (Lecture, two hours; discussion, two hours. Forum to discuss, understand, and critique value systems and values structures embedded in information and work in diverse societies. Exploration of importance of thinking locally, from grassroots, in design, evaluation, and engagement with information in knowing, with differing ontologies. It is now widely accepted that global cultures and communities differ in ways they practice knowledge, understanding, and manifestation. Material and symbolic boundaries around culture and community has become increasingly complicated, as culture becomes increasingly mediated and community has elements of local place, group, and personal. Traditional, economic, and cultural identities being shaped in global media culture? How does this shape nature of power functions? How does this impact heritage, economy, politics, decision making, and accountability in information organizations. Review and implementation of various methods appropriate to design of assessment and evaluation studies. Letter grading.

213. Current Issues in Librarianship. (Lecture, four hours. 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, use, and assessment of information, currently and historically. Refining and rethinking information researching questions; conducting effective information researching; distinguishing among and critically evaluating information resources; presentations on techniques such 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 in support of equity and inclusivity; and designing, creating, and assessing online educational learning objects as positive contributions to addressing social/environmental issues. Concurrently scheduled with course 215. S/U or letter grading.

225. Introduction to Slavic Bibliography. (2) Survey of Slavic Medieval and Renaissance literature and of Slavic and East European bibliography for the humanities and social sciences. Emphasis to be determined by requirements and background of enrolled students. Topics include relating, evaluating, and understanding bibliography and concepts; survey of languages and translation 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; compilation of bibliographies. S/U grading.

226. Records and Information Resources Management. (4) Identification and understanding of methods by which records and information resources management in corporate, government, and other organizational settings, including analysis of organizational information flow, classification, filing, system design, preservation, retention, scheduling, records protection and security, reprographics and image management technology, and litigation support. Letter grading.


228. Approaches to Materialities of Texts and Media. (4) Seminar, two hours; discussion, 90 minutes. Introduction to traditional and current thinking about materialities of texts, books, documents, and digital and print artifacts. Draws on conventional bibliography to introduce students to fundamentals of descriptive and analytic approaches, but also engages students with theoretical and methodological debates in media archaeology, digital humanities, and legacy of structuralist, semiotic, and visual studies approaches. Identification and understanding of methods by which artifacts are materialized and thinking about implications of these for restituting artifacts within cultural, economic, and technological systems of value production. Letter grading.

229. Analytical Bibliography. (Lecture, four hours. The book as physical object and its relationship to transmission of text. History and methods of analytical bibliography, with particular emphasis on handpress

M238. Environmental Protection of Collections for Museums, Libraries, and Archives. (4) (Same as Conservation M240.) Lecture, two hours; laboratory, two hours. Prerequisite: course 432. Review of environmental and biological agents of deterioration, including light, temperature, relative humidity, pollution, insects, and fungi. Emphasis on monitoring environment, agents and understanding of materials sensitivities, along with protective measures for collections. 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 group project for duration of term. S/U grading.

240. Management of Digital Records. (4) Lecture, three hours. Introduction to long-term management of digital administrative, information, communications, imaging, or research systems and records. Topics include electronic recordkeeping, enterprise and risk management, systems analysis and design, metadata development, data preservation, and technological standards and policy development. Letter grading.

241. Digital Preservation. (4) Lecture, three and one half hours. Nature of digital media and networking necessitates reformation of traditional concepts such as authenticity, authorship, and orinals; information systems that are specifically designed to manage preservation process; new ethical, rights, and collaborative frameworks; and economic, legal, and political means with which to manage digital information over long term. Introduction to strategies, techniques, and standards, as well as continuing challenges related to preserving born-digital/born-networked/digitized media and digital humanities environments, sound and moving image materials, social media and personal digital archiving. Implications for digital preservation of new technologies and their applications. Letter grading.

M244. Collection Management for Archives, Libraries, and Museums. (4) (Same as Conservation M244.) Lecture, two hours; fieldwork, two hours. How conservators work together with curators, collection 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. Requisites: courses 200, 260. Provides fundamental knowledge and skills enabling information professionals to link users with information. Overview of structure of literature in different fields; information-seeking behavior of user groups; 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 interaction, information flow among social and occupational groups, and research on information needs and uses. Letter grading.


M253. Medical Knowledge Representation. (4) (Same as Bioengineering M256.) Seminar, four hours; outside study, eight hours. Designed for graduate students. Introduction to network, communications, and information infrastructures in medical environment. Exposure to 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). Emphasis on using medical communication protocols (HL7, DICOM) and current medical information systems (HIS, RIS, PACS). Advancements in networking, such as wireless health systems, peer-to-peer networking, grid/cloud computing, introduction to security and encryption in networked environments. Letter grading.

M255. Medical Decision Making. (4) (Same as Bioengineering M257.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Introduction to decision network models and basic principles related to medical decision making. Introduction to concept of evidence-based medicine and decision processes related to process of care 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, hypothesis testing, and estimation. Focus on technical advances in medical decision support systems and expert systems, with review of classic and current research. Introduction to common statistical and decision-making software packages to familiarize students with current tools. Letter grading.


257. Legal Information Resources and Libraries. (4) Lecture, four hours. Introduction to information resources in law, with emphasis on primary authority and indexes to legal literature. Legal research skills. Letter grading.


260. Description and Access. (4) Lecture, three and one half hours. Social, cultural, and technical practices—formal and informal, institutional and 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 and retrieval procedures, and systems in support of curatorship, stewardship, discovery, and use. Letter grading.

262A. Data Management and Practice. (4) Lecture, three and one half hours. Requisites: course 226. Survey of landscape of data practices and services, including data-intensive research methods; social studies of data practices; comparisons between disciplines; technology and research teams; data centers, libraries, and archives; practices of data sharing and reuse; and introduction to national and international policy for stewardship of data. Assessment of data archiving needs of one research community and group project to develop real data management plan in partnership with UCLA researchers in other academic departments. Letter grading.

262B. Data Curation and Policy. (4) Lecture, three and one half hours. Designed for MLS students. Conceptual framework of course 262A to discuss topics of data curation and policy in more depth. Data selection and appraisal, archives and repositories, economics of data management, data citation and metrics, technologies for data access, data visualization, intellectual property, policy roles of multiple stakeholders in data, and institutional challenges in curation and stewardship of research data. Assessment of data curation and repositories and group project to curate actual data of UCLA researchers in other academic departments. Letter grading.


270. Systems and Infrastructures. (4) Lecture, four hours. Social, cultural, and technical practices through which information and media infrastructures—networks, systems, technologies, algorithms, interfaces, standards, institutions, databases—are designed, built, maintained, and evaluated. Ways in which information infrastructures both shape and are shaped by governmental policy, institutional decision making, socioeconomic forces, labor movements, technical advances, and professional and personal value systems, at levels ranging from local to global. S/U or letter grading.

271. Introduction to Computer Systems and Programming. (4) Lecture, three and one half hours. Introduction to computer programming and survey of foundational computer science topics, including boolean logic, computer architecture, operating systems, algorithms, networking, and databases. Focus on practical skills for manipulating library and archive metadata, such as searching, sorting, regular expressions, and working with application program interface (API), and handling multiple serializations formats (XML, JSON, CSV, Excel). Emphasis on working with standard metadata encodings, such as MARC and EAD. Letter grading.

272. Human/Computer Interaction. (4) Lecture, four hours. Survey of social, behavioral, design, and evaluation issues in human/computer interaction, with readings from several disciplines. Extensive use of technical demonstrations and hands-on applications. Recommended for students in any discipline involved in design or implementation of information technologies. Letter grading.

273. Communities, Information, and Civic Life. (4) Seminar/designers/architects focus on intersection of culture and diversity through direct collaboration with diverse communities in Los Angeles region. Consideration of major issues around well-being of communities in contemporary America, with some eye toward larger global dynamics from fields as wide-ranging as sociology, media studies, anthropology, and urban studies. Investigation of range of theoretical methods and methodologies to develop group-based project designed in collaboration with one community of student choice in Los Angeles area. Examination of community-based methods of interaction and fieldwork (participatory, ethnography, asset mapping, and action research-based) and propose various information services based on this analysis. Letter grading.

274. Database Management Systems. (4) Lecture, three hours; laboratory, two hours. Theories, principles, and practicalities of database systems, including data models, retrieval mechanisms, evaluation methods, data integrity and security, and security considerations. S/U or letter grading.

275. Community Media and Design. (4) Lecture, two hours; laboratory, two hours. Information professionals, scholars, activists, and information creators/designers of community and public media to engage students in understanding infor-
information resources as cultural objects. Role of cultural literacy, historical bibliography, preservation of electronic 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 students. Emphasis on recent contributions to theory, research, and methodology. May be repeated for credit. S/U grading.

291A. Doctoral Seminar: Theoretical Traditions in Information Studies. (4) Seminar, four hours. Nature of information, its role in human social organization—methodological, epistemological, and ethical accounts of information and of information arts and sciences. Conceptions, theories, and models of information; information-related artifacts, agents, contexts, systems, properties, values, and related phenomena. Interdisciplinary context—subfields of information studies and cognate disciplines. Frameworks for theory construction, such as critical theory, semiotics, semiotics, social epistemology. 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 information and evidence—record-keeping and memory-making, personal and community identity, accountability and trust. Information and design—design and implementation of information services and services. Information and policy and law—processes, institutions, stakeholders, Information and professions—domains, ecologies, communities. Economics, geography, history, philosophy, politics, sociology of information and media. Letter grading.

298A. Doctoral Seminar: Research Methods and Design. (4) Seminar, four hour. Survey of quantitative, qualitative, and historical research designs. Ethical issues; conceptualization and measurement; indexes, scales, and sampling; experimental, survey, and evaluation research; data analysis. Letter grading.

298B-298C. Special Topics in Methodology of Information Studies. (4-4) Seminar, four hours. Enforced requisite for course 298C: course 298A. Topics include ethnographical fieldwork methods, archival methodology, bibliographical studies, textual analysis, discourse analysis, historical methods, information visualization, network analysis—bibliometrics, information metrics, social network analysis. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employ as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCL. May be repeated for credit. S/U grading.

400. Professional Development and Portfolio Design. (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 development, such as career planning, continuing education, mentoring, and reflective practice; students also engage in process of guided portfolio design for MLS degree. S/U grading.

410. Management Theory and Practice for Information Professionals. (4) Lecture, two hours; discussion, two hours. Principles and practice of management in all types of organizations where information professionals work. Letter grading.


422. College, University, and Research Libraries. (4) Lecture, four hours. Organization, administration, collections, facilities, finances, and problems of college and university libraries and their relationships within institutions of which they are part. Functions of reference librarians 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. Letter grading.

426. Young Adult Literature. (4) Lecture, four hours. Overview of literature written for young adults (seventh grade and above). Discussion of special problems in working with young people and psychology of teenagers. S/U or letter grading.

427. Young Adult Services. (4) Lecture, three and one half hours; 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.

430. Library Collection Development. (4) Lecture, three and one half hours. Building on literature concerning book trade from digital to antiquarian pertinent to development of collections in public, school, academic, and special libraries. Theory and practice of collection development and management, including evaluation of library user needs and assessments of collections. Organization and administration of acquisition and collection development departments. 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 other 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 working with communities on development of practical strategies for documenting their activities; managing, collecting, and preserving their records and other heritage materials; and undertaking community-centric collaborative research. Students required to reflect critically on questions about definition, community memory and recordkeeping practices, motivations, positionality and politics, voice, ethics, 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. Requisite: course 431. Examination of who uses archives and why, with ultimate goal of creating ways to better understand and meet needs of users, as well as engage new audiences in archival use. While archivists have traditionally conceived of their users as academic researchers, more thorough investigation expands this conception of users to include genealogists, 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 general public. Letter grading.


438B. Seminar: Advanced Issues in Archival Science—Archival Description and Access Systems. (4) Seminar, four hours. Requisite: course 431. Exploration of history 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.


455. Government Information. (4) Lecture, four hours. Introduction to nature and scope of government information promulgated by federal government, as well as by state, municipal, international, and foreign governments. Problem-oriented approach. S/U or letter grading.

457. Health Sciences Librarianship. (4) Lecture, four hours. Health sciences information resources and services, management of health sciences information resources and services, health sciences environment and policies, information systems and technology. 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 designing and applying metadata. S/U or letter grading.

473. Information Technology and Libraries. (4) Lecture, four hours. Overview of major components of library automation: circulation control, acquisitions and serials, public access information systems, and data conversion. Relationships among various automation entities, including internal library automation, networks and vendors (such as bibliographic utilities, regional networks, and online services), and automation of parent organizations (universities, municipalities, corporations, and government agencies). Developments in standards for information processing and new information technologies. Letter grading.
phases 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/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

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.

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, 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.

Policies
For all preparation courses, students must complete each course with a grade of C or better. Repetition of more than one preparation course results in dismissal from 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.

The Major
Required: Physiological Science 107, 111A, 111B, 111L, Chemistry and Biochemistry 153A.

A total of five upper-division physiological science electives is required. Eight units of course 199 or 4 units each (8 units total) of courses 198A and 198B, for students in the departmental honors program, may be applied toward the elective requirement.

Policies
One 200-level graduate course may be applied toward the elective requirement with departmental approval. Courses 189HC, 191H, 192, 193, 195, 196, and graduate courses at the 300, 400, or 500 level may not be applied toward the elective requirement.

Each required and elective course must be taken for a letter grade, and a C average must be maintained in all upper-division courses taken for the major. A grade of C or better is required in Physiological Science 107 and 111A to enroll in course 111B. If students fail to meet these requirements, they may be dismissed from the major.

Honors Program
The honors program provides exceptional students with the opportunity for individual research culminating in an honors thesis. Requirements for admission include a 3.0 overall grade-point average (GPA) and a 3.2 GPA in the Life Sciences core curriculum. After completion of all requirements and with the recommendation of the faculty adviser, the undergraduate affairs committee confers departmental honors at graduation.

Graduate Major
Physiological Science MS

Applicants interested in pursuing graduate study may apply directly to the interdisciplinary Molecular, Cellular, and Integrative Physiology PhD program or the interdisciplinary Neuroscience PhD program.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 of 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.


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 physiological 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 skeletal, muscular, nervous, circulatory, respiratory, digestive, and genitourinary systems. Laboratory includes examination of human cadaver specimens. 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 students preparing to enter an advanced tutorial or 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 for credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Lecture, one hour; discussion, one hour. Limited to honors-eligible students. Honors content noted on transcript. 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. 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; in most cases, must rolle 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 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 M157 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 from genetics to neural circuits to behavior. Discussion of societal implications of these research findings on relevant public policies and criminal justice system. Letter grading.

107. Systems Anatomy. (5) Lecture, four hours; laboratory, three hours; tutorial, two hours. Requisites: Life Sciences 2 or 7C, and Physics 1A, 5A, or 6A. Students must register for lecture and laboratory to receive credit. Systems anatomy focused primarily on human anatomy. Topics include cardiorespiratory, reproductive, nervous, and skeletal systems, with introduction to biomechanical principles. Letter grading.

108. Head and Neck Anatomy: Evolutionary, Biochemical, Developmental, and Clinical Approach. (4) Lecture, four hours; laboratory, two hours. Limited to juniors or seniors. Introduction to head and neck anatomy. Dissection of head and neck, with focus on vasculature, innervation, and musculature to put them in three-dimensional context. Coverage of head and neck, cranial, peripheral, endocrine, and urogenital systems, including parasympathetic nervous system. Letter grading.

111A-111B. Foundations in Physiological Science. (6-6) Lecture, four hours; discussion, two hours. Letter grading. 111A. Requisites: course 107, Chemistry 153A, Life Sciences 2, 3, 4, 23L, Physics 1B or 5C. Students must receive grade of C or better to proceed to next course in series. Introduction to principles of muscular and neural physiology, including factors controlling membrane excitability, neuronal circuits, sensorimotor regulation, special senses, cortical functions, and neuronal plasticity. 111B. Requisites: course 111A, Chemistry 153A, 23L. Students must receive grade of C or better to proceed to next course in series. Introduction to principles of systems physiology, including endocrinology, transport physiology, and homeostatic regulation of cardiovascular physiology.

111L. Physiological Science Laboratory. (3) Laboratory, 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, 111B. Review of knowledge 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 and 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 153A, Life Sciences 2 or 3, or 7A, 7B, and 7C. Required of junior/senior Biochemistry and life sciences majors. Use of disease mechanisms as pedagogical tools to develop higher-order knowledge of basic research methodology. Integration of concepts from genetics, molecular and cell biology, physiology, and biochemistry to create molecular solutions to problem of inherited neuromuscular 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 bioengineering and biophysics and their application to treatment of disease, basic engineering principles, and designs that lend themselves to deciphering physiological states, and application of new technologies in clinical practice and biomedical research. Letter grading.

123.2 Neurobiology of Sleep. (4) (Same as Neuroscience CM123.) Lecture, three hours; discussion, one hour. Emphasis on molecular and cellular mechanisms underlying sleep. For background on scientific discovery of sleep and circadian rhythms, completion of course C126 is highly recommended. Concurrently scheduled with course C223. Letter grading.


125. Molecular Biology of Aging. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. Quantitative descriptive analysis of molecular systems that underlie myriad phenotypes in living cells. Topics include various -omics fields and high-throughput technologies, network biology, integration of experimental and computational data on cellular processes describing molecular pathways, and systems modeling integrated with discussions of their applications in disease-related research. Review of recent literature to gain overview perspectives about new science of systems biology. Letter grading.

126. Biological Clocks. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111A and 111B, or M186A and M180B. Most organisms, including humans, exhibit circadian 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 rhythms. 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. (6) Lecture, four hours; discussion, 90 minutes. Requisites: course 107 or Chemistry 153A, Life Sciences 2 or 3, or 7A, 7B, and 7C. Exploration of host-microbiome interactions in health and disease, drawing upon basic properties for microbial communities, intersections with immunology, metabolism, and neurobiology. Letter grading.

130. Sex Differences in Physiology and Disease. (4) Lecture, three hours. Requisite: 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 and interface between biological factors and effects of gendered environments. Topics include evolution of sex chromosomal states, and determination 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 factors in differentiation of two sexes, defining sex and gender, and sex differences in disease. Concurrently scheduled with course C230. Letter grading.

135. Dynamical Systems Modeling of Physiological Processes. (5) (Formerly numbered 135.) (Same as Neuroscience M135.) Lecture, four hours; laboratory, four hours. Examination and evaluating dynamical models 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 hormone secretion 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.
146. Principles of Nervous System Development. (5) Lecture, three hours; discussion, two hours. Requi- sites: courses 117A (or course 111B) and 111A (or M180A). Examination of central nervous system organization required for production of complex highly ordered system. Topics include neuralization, regionalization, neurogenesis, migration, axonal outgrowth, and synapse formation. Letter grading.

147. Neurobiology of Learning and Memory. (5) Lecture, four hours; discussion, four hours. Requisite: course 111B or M180A. Changes in central nervous system that accompany learning, with emphasis on cellular mechanisms.


153. Dissection Anatomy. (5) Lecture, two hours; laboratory, six hours. Requisite: course 107. Prior to first meeting, students must complete Bloodborne Pathogen Training through UCLA Environment, Health and Safety. Study and dissection of upper and lower extremities of human cadavers; dis- section of thorax and abdomen limited to musculature and neuromuscular system. Letter grading.

154. Cellular Communication and Regulation of Physiological Processes. (4) Lecture, three hours. Limited to juniors/seniors. Signal transduction con- cepts, with focus on role of receptors, G proteins, and intracellular messengers such as cyclic AMP and cal- cium. Integration of these concepts with variety of physiological processes, including stimulus-secretion coupling, vascular smooth muscle contraction, and role of growth factors in cell proliferation. Contem- porary scientific research articles used as basis for mate- rial presented. Students required to present journal ar- ticle for discussion. Letter grading.

155. Development and Structure of Musculoskele- tal System. (4) Requisite: course 111B. Development, histology, cell biology, and biochemistry of musculo- skeletal soft tissues. Integration of knowledge of muscle and connective tissue structure and function 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; dis- cussion, one hour. Enforced requisites: course 111A (or M180A) or course 111B. Letter grading.


165. Comparative Animal Physiology. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sci- ences 1, 2, 3, and 23L, or 7A, 7B, 7C, and 23L. Physi- ological response and function at molecular, cellular, system, and whole organism levels. Students expected to understand genetic and phenotypic an- imal models of muscular dystrophy, to design experi- ments, and to predict outcomes from research data. Letter grading.

166. Animal Physiology. (5) Lecture, three hours; labor- atory, five hours. Requisites: Chemistry 14B and 14BL, or 20B and 30AL, 153A, Life Sciences 7A, 7B, 7C, Physics 1C and 4C, or 3C. Not open for credit to students with credit for Ecology and Evolutionary Bi- ology 170 or Physiology 170. Introduction to physiological principles, with emphasis on organ systems and intact organisms. Letter grading.

167. Physiology of Nutrition. (4) Lecture, four hours. Enforced requisites: course 111A, 14B, or 14BL, or 14D, or 20A, 20B, 30A, or 30B. Limited to Physiological Science majors and Food Studies minors. Topics include physiological adaptation to starvation and physiological responses to antioxidants/antioxidants, vita- min, minerals, photochemicals, and their relationship to common chronic diseases and physiology of fuel utilization during aerobic and anaerobic exercise. Letter grading.

M171. Variable Topics Research Seminars: Cont- temporary Biology. (2) (Same as Neurobiology M171.) Seminar, two hours. Limited to undergraduate fellows in Integrated and Interdisciplinary Undergraduate Re- search Program. Scientific data from primary research articles and from students’ own re- search. May be repeated for credit. P/NP grading.

173. Anatomy and Physiology of Sense Organs. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111A, or M180A and M180B, or Molecular Cell, and Developmental Biology M175A and M175B. Structure and function of sense organs. Adoption of quantitative and comparative approach to provide in- sight into evolution of organs and both inverte- brates and vertebrates. Letter grading.

174. Cell Biophysics in Physiology and Disease. (5) Lecture, three hours; discussion, two hours. Requi- sites: Chemistry 153A. Life Sciences 2, 3, 4, and 3A, or 7A, 7B, 7C, and 23L. Physics 5A, 5B, and 5C, or 6A, 6B, and 6C. Search for information in biological re- search has traditionally focused on genes and bio- chemical pathways. However, the field of cell bi- ology are critical in physiology and disease, they have received much less attention in research. For ex- ample, mechanical properties of cells determine how physical forces alter cell shape and can signal trans- formation in physiological state of cells, such as in malignant transformation. Exploration of cell bio- physics in health and disease from basic physical principles that underlie structure and organization of cytoskeleton to role of cell deformability in diseases such as cancer. Use of articles from primary literature regarding current research. Letter grading.

175. Why Rido Can’t Speak: Biological Evolution of Language. (5) Lecture, three hours; discussion, one hour. Requisite: course 111A or Neuroscience M101A. Horno sapiens are only species currently on planet to possess language. Exploration of whether other spe- cies possesses potential building 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 compo- nental meaning. Topics included anthropological fields of anthropology, bio-psychology, linguistics, molecular genetics, neuroscience, and physiology. Letter grading.


177. Neuroethology. (5) Lecture, four hours; dis- cussion, two hours. Requisite: course 111B or M180A. Physical properties of animal signals and physiological mechanisms underlying their generation. Topics in- clude classical neuroethological models: acoustic and visual communication; emotions and localiza- tion in owls, electro-sensing and electrocommunica- tion in electric fish, and neurobiology of birds. Letter grading.

M178. Quantitative Regulatory Biology and Signal Transduction. (4) (Formerly numbered 178) (Same as Computational and Systems Biology M178 and Micro- biology M178.) Lecture, three hours; laboratory, one hour. Requisite: Life Sciences 7A, 7B, 7C, 30A, 30B. Letter grading. Introduction to key biological motifs and signaling pathways and systems biology concepts that are critical to un- derstanding how cellular responses are controlled. Letter grading.

M181. Neuroscience: From Molecules to Mind— Cellular and Systems Neurosc. (5) (Same as Neuroscience M101B, Molecular, Cell, and Developmental Biology M175A, Neuroscience M101A, and Psychology M117A.) Lecture, four hours; discussion, 90 minutes. Requisites: course M180A (with grade of C– or better), or 20B and 30AL, 153A, Life Sciences 7A, 7B, 7C, Physics 1B or 1BH or 5C or 6B. Students must receive grade of C– or better to pass. Topics in next course in cognitive neuroscience, mem- ory, membrane potential, action potentials, and syn- aptic transmission. Sensory systems and motor system; how assemblies of neurons process complex information and control movement. P/NP or letter grading.

M180B. Neuroscience: From Molecules to Mind— Molecular and Developmental Neurosc. (5) (Same as Neuroscience M101B, Molecular, Cell, and Developmental Biology M175B, and Psychology M117B.) Lecture, four hours; discussion, 90 minutes. Requisites: course M180A with grade of C– or better, or 20B and 30AL, 153A, Life Sciences 7A, 7B, 7C, 30A, 30B. Letter grading. Investigation of structures and functions of brain leading to key biological motifs and signaling pathways and systems biology concepts that are critical to un- derstanding how cellular responses are controlled. Letter grading.


187A. Seeing Brain in Action. (2) Seminar, two hours. Enforced requisites: courses 111A and 111B (or Neu- roscience M101A and M101B). Introduction to latest technical approaches and conceptual advances in one preeminent subfield of neuroscience—live func- tional imaging. Students provided with critiqued scien-

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 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.

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 credited 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 credited toward honors credit for eligible students. Honors content noted on transcript. Letter grading.


191H. Honors Seminars: Current Topics in Physiology. (4) Seminar, four hours. Requisites or corequisites: courses 198A, 198B. Limited to neuroscience and physiological science honors program students. Designed for juniors/seniors and required of department honors students. Presentation of primary paper from physiology literature. Reading and critical evaluation of current research literature. Presentation of student laboratory research hypothesis, approach, and results in form of oral and poster presentations. Letter grading.

192. Practicum in Systems Anatomy for Undergraduate Assistants. (3) Seminar, two hours; additional hours in laboratory setting, to be arranged. Required: enrollment in major/school. (Formerly numbered 200:122.) Limited to juniors/seniors. Training and supervised practicum in systems anatomy for undergraduate assistants. Consult Undergraduate Office for further information. May not be applied toward electives. May not be repeated for credit. Departmental application required. P/NP or letter grading.

193. Journal Club Seminars: Physiological Science. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature in field. May be repeated for credit. P/NP grading.

194A. Research Group Seminars: Physiological Science. (2) Seminar, two hours. Required of undergraduate 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 Science. (1) Seminar, two hours. Corequisite: course 198A or 198B or 198C or 199. Limited to juniors/seniors. Involvement in weekly laboratory research group meetings to encourage student participation in research and to stimulate progress in specific research areas. 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. P/NP grading.

195. Field Studies in Physiological Science. (4) Tutorial, one hour; fieldwork, eight hours. Limited to seniors. Supervised field studies in specific careers related to physiological science. May not be repeated for credit and may not be applied toward elective requirements for course work with supervising faculty member required. P/NP grading.

196. Research Apprenticeship in Physiological Science. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for upper-division students under guidance of 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, or 111C (193 may be taken concurrently). Limited to junior/senior physiological science honors program students. Directed independent research for departmental honors with faculty member, involving definition of research topic and extensive reading and research in field of proposed honors thesis. 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 Physiological Science. (4) Tutorial, 12 hours. Requisites: courses 193 (may be taken concurrently). Limited to junior/senior physiological science honors program students. Additional course to provide further research opportunities for departmental honors students. 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.

198C. Advanced Studies for Honors Research in Physiological Science. (4) Tutorial, 12 hours. Requisites: course 198B. Corequisite: course 193. Limited to junior/senior physiological science honors program students. Additional course to provide further research opportunities for departmental honors students. 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 Physiological Science. (2 to 4) Tutorial, 12 hours. Requisites: courses 111A, 111B, or 1113 (193 may be taken concurrently). Limited to Physiological Science majors with advanced junior standing and 3.0 grade-point average in major, or seniors. Supervised individual research under guidance of faculty mentor. Culuminating paper or project required. Course application must be submitted to undergraduate advisor for review. May be repeated for credit. Individual contract required. P/NP or 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 used to augment theoretical foundations. Letter grading.

M202. Cellular Neurophysiology. (4) (Same as Neuroscience M202F and Neuroscience M202G) Lecture, three hours; discussion, two hours. Requisites: courses 111A (or M180A or Physics 5C), M186. Advanced course in cellular neurophysiology. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmitter release, second messengers, and sensory transduction. 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 Physiology. (6) 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. (4) Formerly numbered C223.) (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, and 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 rhythms, completion of course C126 is highly recommended. Concurrently scheduled with course CM123. Letter grading.

C226. Biological Clocks. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111A and 111B, or M180A and 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 oscillators. 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 C126. Letter grading.


C230. Sex Differences in Physiology and Disease. (4) Lecture, three hours. Requisites: 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 interface between biological factors and effects of gendered environments. Topics include evolution of sex chromosomes, molecular and environmental determination 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 factors in differentiation of two sexes, sexual dimorphism in morphology and function and their influence on physiology, and politics of financial support for research of sex and gender differences in disease. Concurrently scheduled with course C144. Letter grading.

235. Advanced Dynamical Systems Modeling of Physiological Processes. (5) 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.


C244. Neural Control of Physiological Systems. (4) Lecture, four hours. Requisite: course 111B or M180B. Role of central nervous system in control of respiration, circulation, endocrine, and bladder control. Material for each section to be developed by combination of lecture and open discussion. Concurrently scheduled with course C144. Letter grading.

245. Neural Mechanisms Controlling Movement. (5) Lecture, four hours. Requisite: course 111A or M180A or Neuroscience M101A. Examination of central nervous system organization 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. Requisite: course M145. Advanced topics on brain stem mechanisms responsible for controlling cyclic and stereotypic movements such as mastication and locomotion. Emphasis on cellular neurophysiology and interaction between neuronal networks. 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 foundations of modern techniques in physiology research, analysis of research design. Letter grading.

270A. Highly recommended requisite or corequisite: course 111B. Foundation for experimental study of principles of muscular and neural physiology and cellular and system physiology, including controlling membrane excitability, neuronal circuits, sensorimotor regulation, special senses, cortical functions, and neural plasticity. 270B. 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 in 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 covering letter. Letter grading. 289B. Requisite: course 289A.

M290. Seminar: Comparative Physiology. (2) (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, neurobiology, or behavioral physiology. S/U or letter grading.

291A-291B-291C. Seminars: Cardiovascular Function 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. Letter grading.

292. Evolution and Development of Auditory System. (2 or 4) Seminar, two hours. Discussion of specific topics related to evolution, embryology, morphogenesis, cytodifferentiation, and onset of function of auditory system, with special attention to centrifugal 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.


294. Recent Advances in Neurophysiology. (1) Seminar, one hour. Requisite: Life Sciences 2 or undergraduate 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.

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 degree requirements. 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 preparation 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 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.

506. Individual Studies for Graduate Students. (2 to 8) Tutorial, to be arranged. To enroll for letter grade, petition signed by faculty sponsor, graduate adviser, and graduate affairs committee chair must be submitted to end of second week of class. Eight units may be applied toward degree requirements for MS or PhD degree, provided that students enroll in two different 4-unit 596 courses in different laboratory or seminar under supervision of different mentors. Term paper required for letter grading. S/U or letter grading.

597. Preparation for MS Comprehensive Examination or PhD Qualifying Examinations. (2 to 16) Seminar, to be arranged with faculty member serving as student’s comprehensive examination or PhD committee chair. May not be applied toward MS or PhD course requirements. May be repeated as necessary. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 16) Tutorial, to be arranged with faculty member serving as student’s thesis committee chair. May not be applied toward MS course requirements. May be repeated as necessary. S/U grading.

599. Research for and/or Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. May not be applied toward PhD course requirements. May be repeated as necessary, S/U grading.
Students considering a major or minor in the area studies majors and minors through the International Institute offer a variety of 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 subregion (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.

**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

**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. 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.

**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 2DW or 4DW), 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, 105C, 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.

**Policies**

Each course must be taken for a letter grade.

**Transfer Students**

Transfer applicants to the African and Middle Eastern Studies premajor 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, 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.

**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.

**Area Studies:** (1) Three humanities and arts group 1 courses from Arabic M110, 120, C141, M151, Armenian 150A, C151, C152, C153, 160A, 160B, Art History C120, C145A, C145B, Comparative Literature M148, M162, 169, Ethnomusicology 136A, C136B, 161E (2 units), 161L (2 units), 161N (2 units), French 121, 142, Hebrew M113, C140, Iranian 141, 142, 150A,
students 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

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.

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 3.75 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.

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.

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

Admission

To be eligible to declare the Asian 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. 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.

Premajor

Incoming first-year and transfer students may be admitted as Asian Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.
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, 560, 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 2DWR or 4DWR), Ethnomusicology 5, 2M5, 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., 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.

Policies
Each course must be taken for a letter grade.

Transfer Students
Transfer applicants to the Asian Studies program 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, 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.

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.


Policies
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.

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.

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.

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 in time for 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 of 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 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

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. 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.

Premajor
Incoming first-year and transfer students may be admitted as European Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major
Required: (1) International and Area Studies 1, (2) one area studies course from Central and East European Studies 91, 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, 31, 32, 90B (or 90BW), Scandinavian 50 (or 55W), Slavic 90, Spanishish 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, 22, World Arts and Cultures 20, 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 examination given through the appropriate language department.

Policies
Each course must be taken for a letter grade.

Transfer Students
Transfer applicants to the European Studies premajor 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, 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.

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 1) 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 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: French 114A, 114B, 115, 116, 117, 118, 169, German 170, Italian 102A, 102B, 103A, 103B, 110, 113, 114B, 116A, 116B, 140, Russian C124C, C124D, C124G, C124N, C124P, C124T, Scandinavian 142A, 143C, 154 or social sciences group 2: History 121A, 121B, 121C, 122A, 122B, 122C, 125A, 126, Political Science 111C.

Policies
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.

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.

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
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

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. 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.

Premajor
Incoming first-year and transfer students may be admitted as Latin American Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major
Required: (1) International and Area Studies 1, (2) one area studies course from History BA (or BAD), 8B, 8C, 97E, International and Area Studies 50, Portuguese 40B, 46, Spanish 44, (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, 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 Nahuatl, Quechua, or Zapotec, 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.

Policies
Each course must be taken for a letter grade.

Transfer Students
Transfer applicants to the Latin American Studies premajor 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, 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.

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 1) 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 International and Area Studies / 555
diasporsas with origins related to the region toward the area studies electives as long 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.

Policies
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.

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
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.

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 a modern perspective. Successful completion of the minor is indicated on the transcript and diploma.

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 1, World Arts and Cultures 20, 33. Students may substitute one 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.

African Studies Minor
The African Studies minor is designed for students who wish to augment their major with a modern perspective. Successful completion of the minor is indicated on the transcript and diploma.

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

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: Ancient Near East M130, 150B, C165, Arabic 130, 132, 150, Armenian C155, Art History M110A, M110B, 119A, Hebrew 130, 135, History M103A, M103B, 105A, 105B, M106, 107A, 107D, 111A, 111B, 116A, 116B, Islamic Studies M110A, M110B, M110C, 120, 131, 140, Islamic Studies 130, Jewish Studies M150A, 150B, M151A, M155, M182A, M182B, or M182C.

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.

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 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.
Education Office is available through the UCLA to study abroad. Students can travel to all African Studies minors are highly encouraged to study abroad 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.

International and Area Studies / 557

East Asian Studies Minor

The East Asian Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of East Asia—China, Korea, and Japan—from an interdisciplinary and modern perspective.

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.

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 requirement by enrolling 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.

Policy

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.

Above 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 Abroad

East 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.

European Studies Minor

The European Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of Europe from an interdisciplinary and modern perspective.

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 Comparative Literature 1C, 2C, 4C, Dutch 10, English 88G, French 12, 14, 14W, 41, 60, German 50B, 57, 59, 61A through 61D, 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.
Latin American Studies Minor

The Latin American Studies minor is designed for students who wish to augment their major with concentrated study of the history, culture, and society of Latin America from an interdisciplinary and modern perspective.

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, Geology 1, Ethnomusicology 5, M25, Geology 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, 142B, 142B, Spanish 120, World Arts and Cultures C139, (2) two social sciences group 1 courses from African American Studies M154D, M154D, 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, 191, 194, 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, 128B, 136B, 136C, 137A, 137B, 138, 139, M140, 141, 142, 142B, 142C, 142B, 142B, 142B, Spanish 120, 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.

South Asian Studies Minor

The South Asian Studies minor is designed for students who wish to augment their major with a concentration in the history, culture, and society of South Asia from an interdisciplinary and modern perspective.

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, Geology 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 21 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, 142B, 142B, Spanish 120, World Arts and Cultures C139, (2) two social sciences group 1 courses from African American Studies M154D, M154D, 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, 191, 194, 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, 128B, 136B, 136C, 137A, 137B, 138, 139, M140, 141, 142, 142B, 142B, Spanish 120, 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.
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 9E, 97M, International and Area Studies 31, Southeast Asian M20, 50, M60, 70, 90, or Vietnamese 40) 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 Ethnomusicology 161B (must be taken twice to equal one 4-unit course), Southeast Asian 130, 135, C140, C150, Vietnamese CM155, 180B, M186, (2) two social sciences group 1 courses from Asian American Studies M171D, 171E, Gender Studies M164A, History 176B, 176C, 176E, 177A, 177B, 185B, 185C, Political Science 158, 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.

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.

Study Abroad
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.

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.

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.

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 frameworks, emphasizing 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 world. P/NP or letter grading.

MSA-M5B-M5C. Elementary Nahuatl. (4-4-4) (Same as Asian American Studies M5A-M5B-M5C and Indigenous Languages of the Americas M5A-M5B-M5C.) Lecture, five hours. Course M5A is enforced requisite to M5B, which is enforced requisite to M5C. Introduction to Aztec language of central Mexico. Coverage of basic Nahuatl grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

M6A-M6B-M6C. Elementary Amharic. (4-4-4) (Same as African American Studies M9A-M9B-M9C.) Lecture, five hours. Course M6A is requisite to M6B, 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.

MT4-MTB-M7C. Elementary Yoruba. (4-4-4) (Same as African American Studies MTA-MTB-M7C.) Lecture, five hours. Course MT4 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.

Examinations in International Studies, (2) Lecture, two hours. Examination 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.

M15A-M15B-M15C. Intermediate Nahuatl. (4-4-4) (Same as Chicana/o and Central American Studies M15A-M15B-M15C and Indigenous Languages of the Americas M15A-M15B-M15C.) Lecture, four hours. Course M15A is enforced requisite to M15B, which is enforced requisite to M15C. 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.

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 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.

33. 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.
Seminar, three hours. 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. P/NP or letter grading.

89HHC. 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.

110A-110B. Field Studies in International and Area Studies. (4–4) Seminar, three hours. Exploration of culture, economy, history, and politics of important locations around the world. Hands-on experiential programs offered for students participating in UCLA Travel Study Program. Field trips included to gain firsthand experience. May be repeated with topic and/or location change. Offered in summer only. P/NP or letter grading.

111A. Art of Citizen Diplomacy. (2) Seminar, two hours. Examination of theory, tools, and practice of civic engagement by highlighting student leadership. Provides students with practical tools in leadership, civic responsibility, and conflict resolution in order to tackle global issues such as climate change, gender equality, income equality, and human rights. Class activities to understand how civic engagement can build bridges between cultures. Letter grading.

111B. Introduction to Experiential Learning Abroad. (2) Seminar, two hours. Intended for students planning to participate in international study abroad program during summer. Practical work 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.

111C. Engaging Global Cultures: Reflecting on Fieldwork. (2) Seminar, two hours. Academic venue for students who completed 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 a journal article. Letter grading.

M115A-M115B-M115C. Advanced Nahuatl. (4-4-4) (Same as Chicana/o and Central American Studies M162A-M162B-M162C and Indigenous Languages of the Americas M115A-M115B-M115C) Lecture, four hours. Requisites: courses M15A, M15B, M15C. Course M115A is requisite to M115B, which is requisite to M115C. 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.

160. Selected Topics in International and Area Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of one or more topics related to international and area studies. May be repeated for credit with topic change. P/NP or letter grading.

188. Special Courses in International and Area Studies. (4) Seminar, three hours. Program-specific or sored experimental or temporary courses, such as those taught by resident or visiting faculty members. May be repeated for credit with topic change. 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: International and Area Studies. (4) Seminar, three hours. Enforced requisite: course 1, Limited to senior international and area studies majors. Organized on topics with basis on readings, discussions, papers, and development of culminating project. May not be repeated for credit. Letter grading.

193. Colloquia and Speaker Series. (1) Seminar, two hours. Introduction to current scholarship in field of international and area studies. Attendance at selected presentations with required response papers. May be repeated for credit. P/NP grading.

195CE. Community or Corporate Internships in International and Area 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 Learning. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct a list of hosting assignments that examine issues related to internship site. May 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.

198A-198B-198C. Honors Research in International and Area Studies. (4–4–4) Tutorial, to be arranged. Limited to international and area studies honors program students. May be repeated for credit. Individual contract required. Letter grading. 198A. Supervised individual research or investigation under guidance of faculty mentor. Development and planning of honors thesis. 198B. Enforced requisite: course 198A. Supervised individual research or investigation under guidance of faculty mentor. Continued development and refinement of honors thesis. 198C. Enforced requisite: course 198B. Final drafting and submission of completed honors thesis. Culminating paper of 35 to 50 pages required.

199. Directed Research in International and Area Studies. (4-4-4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. May be applied toward requirements by petition. 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.

INTERNATIONAL DEVELOPMENT STUDIES

Interdepartmental Program

College of Letters and Science

10274 Bunche Hall
Box 951487
Los Angeles, CA 90095-1487

International Development Studies
310-825-5187
Program e-mail

Michael F. Lofchie, PhD, Chair

Faculty Committee

Victor Agadjanian, PhD (Sociology)
Hannah C. Appel, PhD (Anthropology)
Andrew Apter, PhD (Anthropology)
Jennifer J. Chun, PhD (Asian American Studies)
Kevan K. Harris, PhD (Sociology)
Patrick C. Heuveline, PhD (Sociology)
Michael F. Lofchie, PhD (Political Science)
Shaina S. Potts, PhD (Geography)
Ananya Roy, PhD (Geography, Social Welfare, Urban Planning)
Eric S. Sheppard, PhD (Geography)
Alden H. Young, PhD (African American Studies)

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.

Capstone Major

The International Development Studies major is a designated capstone major. Seniors must complete an advanced seminar that provides a 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 majors 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

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 3 (elementary level). 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 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.

Premajor

Incoming first-year and transfer students may be admitted as International Development Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

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, 55, 50, (e) History 8A, BB, GC, 9A, 9D, 9E, 10B, 10BW, 11B, 12B, 12C, 22, (f) Political Science 20, 50, (g) Sociology 1, (h) Comparative Literature and Culture 4DW, Spanish 44; and (5) demonstrated proficiency in one modern foreign language equivalent to level 6 at UCLA.

Policies

Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the International Development Studies premajors with 90 or more units must complete the following introductory courses prior to admission to UCLA: two introductory microeconomics, 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.

The Major

Required: (1) Three core courses selected from International Development Studies 110, 120, 130, and 140; (2) capstone seminar course: International Development Studies 191; (3) one research methodology course from Anthropology 138P, Asian American Studies 103, C142A, C142B, Chicano/a and Central American Studies M119, M122, 123, Economics 103, Political Science 170A, Public Affairs 115, 116, Sociology 113, Statistics 112, Urban Planning M122; (4) three social and critical theory courses, each from a different department, from Anthropology 130, 140, 143, 146, 147, Economics 111, 112, 134, Environment M125, M133, M161, Gender Studies 102, 103, Geography M125, M127, 130, 140, 141, 148, 150, 151, 158, International Development Studies 110 or M120 or 130 or 140 (if not taken under item 1), M130, Political Science 122A, M122B, 124A, 167D, 168, Public Affairs 110, Sociology 101, 102, M115, 122, 123, 182, 183, 191D, Urban Planning M110, 121, M160, CM166; (5) two regional courses, either from the same or separate developing regions of the world (East Asia and East Central Asia, Eastern Europe and West Central Asia, Latin America and Caribbean Basin, Middle East and North Africa, South and Southeast 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, 126, Gender Studies M127, History 107C, 120B, 120D, 127B, 127C, Political Science 128B, 156A, Russian 120, 121, 122, M127, 131.


Policies

Each course must be taken for a letter grade. Students must earn a grade of C or better in-
ternational 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.

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 310-825-4995.

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. 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. In addition to, 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

Lower-Division Courses

1. Introduction to International Development Studies. (5) Lecture, three hours; discussion, one hour. Exploration of historical and contemporary contexts of socioeconomic inequalities between Global South and Global North. Focus on cultural, political, and economic realities of developing world, which includes countries of Asia, eastern Europe, Africa, Middle East, and Latin America. 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. (I) 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. (I) 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. 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

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 development, international relations 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 economic growth and others have not. Explanation and review of logic behind most important arguments that have been advanced to account for differences in rates and levels of economic development. Letter grading.

130. Theory and History in International Developmen. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Social scientific survey of developments contributing to economic development and underdevelopment. Topics include measurement and statistics, social and industrial policies, inequality, poverty, and historical differences for development 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 development as global good can be reconciled with its origins in colonialism, and how development became hegemonic way of imagining decolonization. Particular focus on voices of critique and special emphasis to models of development that emerged from Africa, Middle East, and South Asia. Discussion of relationship between rival notions of development and competing ideas of international relations. Letter grading.

150, Political Economy of 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 local levels are addressing—or not addressing—extraordinary challenges 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. Concen- tration on challenge of mitigating, rather than adapting to, climate change; and concentration on energy use, rather than agriculture, forestry, and land use. Letter grading.

160. Selected Topics in International Development Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Exploration of how governments at international, national and local levels are addressing—or not addressing—extraordinary challenges 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. Concen- tration on challenge of mitigating, rather than adapting to, climate change; and concentration on energy use, rather than agriculture, forestry, and land use. Letter grading.

193. Colloquia and Speaker Series. (1) Seminar, two hours. Discussion of current scholarship in field of international development studies or of topics related to guest speaker series. May be repeated for credit. P/NP grading.

194. Research Group Seminar. (1) Seminar, two hours. Designed to encourage participation and stimulate progress in specific research areas for undergraduate students who are part of departmental research group or internship. Discussion of research methods and current literature in field of international development studies or of research of faculty members or students. May be repeated for credit. P/NP grading.

195. Community or Corporate Internship in Inter- national Development Studies. (4) Tutorial, to be arranged; fieldwork, 10 to 12 hours. Limited to juniors/seniors. Supervised internship in corporate, community, governmental, or nonprofit setting coordinated by International Development Studies under guidance of faculty member or students. Honors contract noted on transcript. P/NP or letter grading.


199. Directed Research in International Develop- ment Studies. (4) Tutorial, to be arranged. Limited to junior/senior International Development Studies majors. Supervised intensive research program in which students conduct interdisciplinary research under guidance of faculty mentor. Culuminating paper required. May be applied toward major via petition. May be repeated for credit. Individual contract required. Letter grading.

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.

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 Faulistich Orellana, PhD (Education)
Roger Waldinger, PhD (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 advisor, 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 the spring quarter of the junior year.

The Minor
Required Upper-Division Courses (28–32 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, 146B, 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

193. 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.


ISLAMIC STUDIES
See Near Eastern Languages and Cultures

ITALIAN
See European Languages and Trans-cultural Studies

LABOR STUDIES
Interdepartmental Program
College of Letters and Science
9244 Bunche Hall
Box 951478
Los Angeles, CA 90095-1478
Labor Studies
310-206-0812
Program e-mail
F. Tobias Higbie, PhD, Chair

Faculty Committee
Maylei S. Blackwell, PhD (Chicana/o and Central American Studies, Gender Studies)
Jennifer J. Chun, PhD (Asian American Studies)
Christopher L. Erickson, PhD (Management)
F. Tobias Higbie, PhD (History)
Kelly A. Lytle Hernández, PhD (History)
Gaye T. Johnson, PhD (Chicana/o and Central American Studies)
Sarah T. Roberts, PhD (Information Studies)
Abel Valenzuela, Jr., PhD (Chicana/o and Central American Studies, Urban Planning)
Noah D. Zatz, JD, MA (Law)

Overview
Labor studies is an interdisciplinary field of scholarship that encompasses historical and contemporary study of the sociocultural economic, legal policy, and political forces that shape the lives of working people, labor markets, employment practices, and social movements seeking greater economic equity for
The Labor Studies major is a designated capstone major. Undergraduate students fulfill a research-intensive capstone course or service learning experience in their senior year.

Learning Outcomes
The Labor Studies major has the following learning outcomes:

- Demonstrated familiarity and competence in a range of interdisciplinary methodologies and approaches
- Demonstrated knowledge of the field of labor studies acquired through coursework
- Demonstrated familiarity with dynamics of social movements through study and/or experience
- Demonstrated ability to conceive and execute an original research project, either individually or in a research group
- Demonstrated ability to communicate research findings to academic and nonacademic audiences

Admission
To be admitted to the Labor Studies major, students must have a minimum grade point average of 2.5 and must have completed all non-language Labor Studies preparation for the major courses. Students must complete an application process, and file a petition to be admitted for the major at the program office.

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.

Policies
Students may petition, prior to enrollment in the course, to apply other topical lower-division courses with substantial labor-related content.

Transfer Students
Transfer applicants to the Labor 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 labor history or one social structure and contemporary conditions course related to labor and/or social movements.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required Core Course (4 units): Labor Studies 101.


Students may petition, prior to enrollment in the course, to apply other topical courses with substantial labor-related content.

Capstone Major
The Labor Studies major is a designated capstone major. Undergraduate students fulfill a research-intensive capstone course or service learning experience in their senior year.

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.

Undergraduate Major
Labor Studies BA
The Labor Studies major offers an interdisciplinary approach to the study of inequality at work and in the community. The program prepares undergraduates for a wide range of careers including but not limited to labor relations; human resource management; human rights, labor and community organizing; business; law; domestic and international government work; nonprofit management; organizational leadership; economic forecasting; education; social work; and social welfare. To be admitted to the Labor Studies major, students must have a minimum grade point average of 2.5 and must have completed all non-language Labor Studies preparation for the major courses. Students must complete an application process, and file a petition to be admitted for the major at the program office.

Capstone Major
The Labor Studies major is a designated capstone major. Undergraduate students fulfill a research-intensive capstone course or service learning experience in their senior year.

Policies
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 file 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 content.
Upper-Division Courses

101. Introduction to Labor and Social Movements in Los Angeles. (4) (Formerly numbered Labor and Workplace Studies 101.) Lecture, three hours; discussion, one hour. Students gain exposure to concepts of social justice, unions, and workers 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 historically and currently. Topics include changing organization of work in U.S. and reconfiguration of employment relationships; response of labor movement, historically and in present, to managerial initiatives; way in which organized labor movement has affected race, gender, and immigration status; and challenges facing workers in 21st century and their institutional responses in Los Angeles. P/NP or letter grading.

M114C. African American Political Thought. (4) (Formerly 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). Intensive introduction to African American political thought, with focus on major ideological trends and political philosophies in African American experience interpreted by African Americans. Debates and conflicts in black political thought, historical context of African American social movements, and relationship between these movements 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 those who have been Black labor and community organizing traditions, students develop skills and mindsets needed for transformative leadership. Students connect with leaders of community organizations, engage in leadership development, and participate in 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 seniors. Examination of several dimensions of Asian American social movements, including grassroots, mass movement character, political and social visions, and social and political relevance to current issues. How movement participants linked struggle for change with own personal transformation and growth. P/NP or letter grading.


M119. Asian American and Pacific Islander Labor Issues. (4) (Formerly numbered Labor and Workplace Studies M119.) Lecture, three hours. Examination of historical and contemporary labor issues in Asian and Pacific Islander American communities, with emphasis on role that Asian and Pacific Islander American students can play in supporting labor struggles of low-income immigrants. P/NP or letter grading.

M121. Issues in Latina/Latino Poverty: Mexican and Central American Voices from Los Angeles. (4) (Formerly numbered Labor and Workplace Studies M121.) (Same as Chicano/a and Central American 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 these models to differences between 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: Preserving and Strengthening Community Assets in Mexican and Salvadoran Los Angeles. (4) (Formerly numbered Labor and Workplace Studies M122.) (Same as Chicano/a and Central American Studies M122 and Urban Planning M171.) Lecture, four hours. How community and economic development interact, role of assets in community development, and unique strategies 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.

M123. Chicano/Latino Community Formation: Critical Perspectives and Oral Histories. (4) (Formerly numbered Labor and Workplace Studies M123.) (Same as Chicano/a and Central American Studies M123.) Lecture, four hours. Exploration of oral history and critical perspectives in Chicano/Latino communities in 20th century, with focus on labor, immigration, economic structures, electoral politics, and international dimensions. Letter grading.

M125. U.S./Mexico Relations. (4) (Formerly numbered Labor and Workplace Studies M125.) (Same as Chicano/a and Central American Studies M125.) Lecture, four hours. Examination of complex dynamics in relationship between Mexico and U.S., using political economy approach to study of asymmetrical integration between advanced industrial economies and developing countries. P/NP or letter grading.

126. Farm Worker Transnational Struggle. (4) (Formerly numbered Labor and Workplace Studies 126.) Lecture, three hours; discussion, one hour. Focus on contemporary and historical issues farm workers face in agricultural economy, and their class, racial, and gender dynamics that shape their work experiences and economic and political opportunities in society at large. Study also covers gender, race, and class conflicts in workplace and during collective struggles for equality in contemporary society, including political and cultural legacy of farm workers’ struggle in U.S. and its long-lasting impact on labor movement and immigrant workers. Critical social justice focus on assessing and understanding role farm-worker-led labor and civil rights movements have had in promoting multiracial and multicultural campaigns for workplace and economic justice. Cross-border perspective. Students develop theoretical and practical understanding of farm workers’ experiences across U.S.-Mexico border, and of legacy of United Farm Workers and other farm worker unions. P/NP or letter grading.

M127. Farmworker Movements, Social Justice, and United Farm Workers Legacy. (4) (Formerly numbered Labor and Workplace Studies M127.) (Same as Chicano/a and Central American Studies M127.) Lecture, four hours. Designed for seniors. Historical and social context of farmworker organizing, including its multiracial origins and its influence for equality and social justice. Focus on assessing and understanding role farm-worker-led labor and civil rights movements have had in promoting multiracial and multicultural campaigns for workplace and economic justice. Cross-border perspective. Students develop theoretical and practical understanding of farm workers’ experiences across U.S.-Mexico border, and of legacy of United Farm Workers and other farm worker unions. P/NP or letter grading.

M128. Race, Gender, and U.S. Labor. (4) (Formerly numbered Labor and Workplace Studies M128.) (Same as Chicano/a and Central American Studies M128.) Lecture, four hours. Designed for seniors. Historical and social context of organization of labor movement in U.S. and North America. Discussion of race, class, and gender issues raised within movement, and various strategies for social change and economic equity pursued through organized labor and other means. Letter grading.

Labor Studies

Lower-Division Courses

M1A-M1B-M1CW. Work, Labor, and Social Justice in U.S. (6–6–6) (Formerly numbered Labor and Workplace Studies M1A-M1B-M1CW.) Work, Labor, and Social Justice (6–6–6). Formerly numbered Labor and Work M1A-M1B-M1CW. Labor Studies, (6–6–6). Limited to first-year freshmen. Letter grading. M1A. Lecture, three hours; discussion, two hours. Exploration of ways in which work has been transformed over last century, impact of this transformation on working conditions and labor movement for social justice. M1CW. Special Topics. Seminar, three hours. Enforced prerequisite: course M1B. Topics include labor law/history, gender, race, and workplace. Satisfactory/unsatisfactory grading.

10. Introduction to Labor and Workplace Studies. (5) (Formerly numbered Labor and Workplace Studies 10.) Lecture, three hours; discussion, one hour. 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.

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 repeated with topic change. 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. Introduction to Labor Studies Research. (4) Seminar, three hours. Designed for freshmen/sophomores. Study of current topics and research methods in labor studies. Research methods in labor studies and other assignments. Introduces required. May be repeated with different topics offered. Specific topic, research methods and research 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. Directed study component for 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.
1. M134XP. Engaging Immigrants and Their Families. (Formerly numbered M134SL.) (Same as Chicana/o and Central American Studies M134XP and Community Engagement and Social Change M134XP) Lecture, two hours; discussion, two hours; field placement, two hours. Exploration and exchange in landscape 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 initiatives that take place in multiple communities across Los Angeles basin. Service learning partnerships focus on organizations addressing immigration concerns. Letter grading.

2. M136. Working Families and Educational Inequalities in Urban Schools. (Formerly numbered Labor and Workplace Studies M136.) (Same as Education M136.) Seminar, three hours; fieldwork, five hours. Exploration of relationship between urban, working-class and poor communities and inequalities in American urban schools. Drawing on multiple disciplinary frameworks that address issues of race, ethnicity, and immigration, students will critically analyze how structural and relational inequalities are produced and resisted. Review of history of exclusionary treatment and divergent conceptual frames that educational researchers have used to understand access to quality public education, and how race, ethnicity, and class affect school experiences for working-class and low-income communities. Look inside schools through community service learning, write poetry, use community archives, and everyday practices that sustain and reproduce inequality and policies that intend to remedy educational inequalities in urban schools. Opportunity to investigate issues of class, gender, and inequalities as they relate to students’ own communities and experiences. P/NP or letter grading.

140. Working It: Women, Work, and Family. (Formerly numbered Labor and Workplace Studies 140.) Lecture, three hours; discussion, one hour. Examination of working women in U.S. history from 19th-century midwifery to 21st-century sex workers through film, oral history, and traditional forms of scholarship. Exploration of ways women’s work life of women from different racial, ethnic, and class backgrounds has and has not been integrated into systems of power and exploitation. Consideration of class as intersectional category of race, gender, and sexuality. Students read novels about class and work, and contribute to body of working class literature through memoir, fiction, poetry, or journalism. P/NP or letter grading.

144. African American Studies M144.) (Same as Chicana/o and Central American Studies M144 and Gender Studies M144.) Lecture, four hours. Course on women’s movements and feminisms 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 feminism and women’s consciousness that have emerged out of indigenous movements, environmental struggles over labor movements, Christian-based communities, peasant and rural organizing, and new social movements that are conscious of 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.

149. Media: Gender, Race, and Sexuality. (Formerly numbered Labor and Workplace Studies M149.) (Same as Chicana/o and Central American Studies M149.) Lecture, four hours; activity, one hour. Limited to junior/senior Communication and Gender Studies majors and Labor Studies minors. Examination of mainstays of gender culture industry in relation to perception of various dominant and domestic and/or colonized groups of people. Ways in which women, gay, lesbian, bisexual, transgender, racial, and ethnic marginalized peoples, class relations, and other subaltern or subordinated groups are presented and often misrepresented in media. Investigation and employment of practical applications of communications and feminist theories for understanding ideological nature of stereotyping and politics of representation through use of media, guest presentations, lectures, classes and readings, introduction to theory and practice of cultural studies. Letter grading.

152. Work, Social Justice, and Arts. (Formerly numbered Labor and Workplace Studies 152.) Lecture, three hours; fieldtrip. Analysis of how art (in cartoon, poster art, murals, photography, film, visual art, theater, performance, dance, and music) has been influential in popular movements for economic, racial, and social justice by artists, workers’ groups, American labor movement, and social movements such as civil rights, women’s rights, immigrant rights, and Black Lives Matter. Discussion of different courses of art-making that have been used in specific historical struggles (1950s, Great Depression of 1930s, 1960s, to present). Examination of what Los Angeles has to offer in terms of art, labor, and social justice movements. Students visit art, social justice, or art organizations in L.A. that is focused on themes of work, labor, and art. Exploration of spectra of art forms (dance, music, sculpture, theater, visual quality, and politics) that have been introduced and reproduced as reflections of work, labor, and social justice struggles in U.S. P/NP or letter grading.

153. Stories of Struggle: Work, Class, and Narrative in Contemporary Immigrant Literature. (Formerly numbered Labor and Workplace Studies 153.) Lecture, three hours. Overview of contemporary working narratives. Investigation of how working-class Americans from diverse economic backgrounds have contributed to body of working class literature through memoir, fiction, poetry, or journalism. P/NP or letter grading.

1565. Sociology of Race and Labor. (Formerly numbered Labor and Workplace Studies M1565.) (Same as African American Studies M1565 and Sociology M1565.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Exploration of relationships between race/ethnicity, employment, and U.S. labor movements focusing on structural and ideological dispositions in workforce and how they evolved historically. Consideration 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.

1566. Immigration Rights, Labor, and Higher Education. (Formerly numbered Labor and Workplace Studies M1566A.) (Same as Asian American Studies M1566A and Chicana/o and Central American Studies M1566A) 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 issue of immigrant students in higher education. Examination of undocumented immigrant students, and legislative and policy issues that have emerged. Students conduct oral histories, family histories, research on immigration and immigrant rights issues, and outcomes 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 or letter grading. Designed around class project, where students will be showing all material collected throughout year. Letter grading.

1567. Worker Center Movement: Next Wave Organizing for Justice for Immigrant Workers. (Formerly numbered Labor and Workplace Studies M1567.) (Same as African American Studies M1567, Asian American Studies M1567, and Chicana/o and Central American Studies M1567) Seminar, three hours. Development of theoretical and practical understanding of immigrant worker movement, legal, political factors that have led to emergence and growth of worker centers. Role of worker centers in promoting multi-ethnic and multicultural campaigns for workplace and economic justice. Transborder solidarity issues and rights of undocumented workers. P/NP or letter grading.

168. Law and Politics of Immigration: Migrants and Evitable Evolution of Collective and Individual Rights. (Formerly numbered Labor and Workplace Studies 168.) Lecture, three hours. With immigration and 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. Endows students with wide array of analytical 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 law and policy regarding immigration. Exploration of themes of inclusion, exclusion, integration, and multiculturalism. Students describe shortcomings of status-quo policies while exploring what law can and should do. P/NP or letter grading.

170. Improving Worker Health: Social Movements, Policy Debates, and Public Health. (Formerly numbered Labor and Workplace Studies M170.) (Same as Community Health Sciences CM170.) 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. P/NP or letter grading.

171. Labor and Economic Development. (Formerly numbered Labor and Workplace Studies M171.) (Same as Urban Planning CM172.) Lecture, three hours. Exploration of economic development and determination of ways that specific conditions directly and indirectly influence and shape economic development. Wide range of roles that labor plays, and could play, in promoting and supporting economic development for all. Letter or letter grading.

173. Nonviolence and Social Movements. (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 of nonviolence and its impact on social movements both historically and in its present context in contemporary society, featuring lectures, conversations, films, read-
ings, 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 lessons of nonviolent movements as they impact social change organizing in Los Angeles. P/NP or letter grading.

174. Labor and Employment Law. (Formerly numbered Labor and Workplace Studies 174.) Lecture, three hours. Using 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. Emphasis on primary federal acts and court cases that govern strikes, picketing, boycotts, and union elections. Examination of challenges to organized labor from inside and outside labor movement, including rights to work legislation; dismantling of public sector unions; and racism, sexism, and anti-immigrant sentiment in labor movement. Emphasis on case studies. Topics include new trends in labor organizing, offers mix of guest speakers, oral history, case excerpts, scholarly articles, newspapers, and blogs, small-group work, and community engagement. P/NP or letter grading.

M175. Agitational Communication. (Formerly numbered Labor and Workplace Studies M175.) (Same as Communication M165.) Lecture, four hours; discussion, one hour (when scheduled). Theory of agitational communication; agitational strategy as a force for change in existing institutions and democratic societies. Intensive study of selected agitational movements and techniques and content of their communications. Letter grading.

M176. Visual Communication and Social Advocacy. (Formerly numbered Labor and Workplace Studies M176.) (Same as Communication M176.) Lecture, four hours. Visual communication reaches diverse audiences in communicating major social and political topics. Topics include film, comics, murals, and documentary photography. Students will have the potential world impact. Survey of all four genres of visual communications as features of modern mass media. Letter grading.

177. Spirituality, Mindfulness, Self-Care, and Social Justice. (Formerly numbered Labor and Workplace Studies 177.) Seminar, three hours. Exploration of role of spirituality and mindfulness practice in labor and immigration struggles, rights movements, and social justice. Includes case studies of St. Francis Assisi, Assata Shakur, Mahatma Gandhi, Martin Luther King, Thich Nhat Hanh, and other spiritual leaders. Uses specific case studies and workshop experiences. Students learn from 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. (Formerly numbered Labor and Workplace Studies 179A.) Lecture, three hours. Study of intersection of neoliberalism, democracy, and rise of social justice movements primarily in U.S. This offers in-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 ideology and form of governance. Examination of some of main works on democratic theory and their relationship to issue of social justice that demonstrate how specific pattern of development of neoliberalism and its form of governance have deepened levels of inequality. Examination of evidence of grassroots political movements that have organized around different demands and contexts. Study of 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, and Community Organizing. (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 groups and organizations of society to promote their interests and express their needs. Identification of fundamental characteristics of effective and responsive democratic regime. Summarization of critiques that describe means by which those elements are being undermined in current period. Focus on those 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. (Formerly numbered Labor and Workplace Studies M180.) (Same as Urban Planning CM137.) Lecture, three hours. Introduction to regional economy, with emphasis on Los Angeles factors, labor market composition, and review of conflicting portrayals depicting dynamics of region. Two all-day bus tours of key economic regions and guest lectures and small-group exercises in communicating major social and political issues. P/NP or letter grading.

181. Los Angeles Labor and Social Science Research Principles, Methods, and Practices. (Formerly numbered Labor and Workplace Studies 181.) Lecture, three hours. Cartoons, posters, murals, and documentary uses of oral history interviews that bring narratives to wide public audience. No prior knowledge or experience with interviewing and processing required. P/NP or letter grading.

182A. Oral History and Collective Memory: Research Methods and Applications of 21st-Century Narratives. (Formerly numbered Labor and Workplace Studies 182A.) Lecture, three hours. Part II of two-part series on oral history, memory, and public engagement. Introduction to field of oral history and hands-on experience in interviewing, processing, technology, and expanded public engagement. Readings and discussion of literature about oral history theory and methods and examination of how scholars use oral history interviews to develop historical narratives about working class communities. Students learn foundations for designing and executing oral history research projects and undertake independent fieldwork that allows them to apply methods and approaches studied in class. Emphasis on innovative uses of oral history interviews that bring narratives to wide public audience. No prior knowledge or experience with interviewing and processing required. P/NP or letter grading.

182B. Oral History and Collective Memory: Research Methods and Applications of 21st-Century Immigrant Narratives. (Formerly numbered Labor and Workplace Studies 182B.) Lecture, three hours. Part II of two-part series on oral history, immigrant narratives, and public engagement. Introduction to field of oral history and hands-on experience in interviewing, technology, and public engagement. Readings and discussion of literature about oral history theory and methods as they relate to documenting immigrant experience. Students learn foundations for designing and executing oral history research projects and undertake independent fieldwork that allows them to apply methods and approaches studied in class. Emphasis on innovative uses of oral history interviews that bring narratives to wide public audience. No prior knowledge or experience with interviewing and processing required. P/NP or letter grading.

187. Special Courses in Labor and Workplace Studies. (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.

188. Special Courses in Labor and Workplace Studies. (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.

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, oral presentations and participation by instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189H. 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.

M190A. Introduction to Community-Engaged Research. (Formerly numbered Labor and Workplace Studies M190A.) (Same as Community Engagement and Social Change M190A) Seminar, three hours. Enrollment by consent of instructor. Designed for students participating in Astin Community Scholars Program. Introduction of principles of community-engaged research. Exploration of intentions behind research research behind 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 participatory research project. Focus on current topic affecting Angelinos and neighboring communities. Key outcomes may include development of policy reports, popular education materials, 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.

M190B. Community-Engaged Research in Practice: Community Scholars. (Formerly as Community Engagement and Social Change M190B) Seminar, three hours. Enrollment by consent of instructor. Designed for students participating in Astin Community Scholars Program. Focus on current topic affecting Angelenos and neighboring communities. Key outcomes may include development of policy reports, popular education materials, 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. (Formerly as Community Engagement and Social Change M190C) Seminar, three hours. Requisites: courses M190A, M190B. Enrollment by consent of instructor. Designed for students participating in Astin Community Scholars Program. Focus on current topic affecting Angelenos and neighboring communities. Key outcomes may include development of policy reports, popular education materials, 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.

191A. Labor Studies Research Principles, Methods, and Practices. (Formerly numbered 191A) Seminar, three hours. First part of Labor Studies capstone senior research project series with focus on fundamentals 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 workers, organize-
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 capstone research project including refined research question(s), advanced literature review, research design and plan, data collection and analysis, and final paper outline. Continued development of applied qualitative and quantitative research skills with focus on workers, labor and immigrant rights movements, policy initiatives, and/or political action in Los Angeles as research lens. P/NP or letter grading.

194A. Research Group Seminars: Labor Summer Research Program. (4) (Formerly numbered Labor and Workplace Studies 194A.) Seminar, three hours. Enforced corequisite: course 194C. Designed for undergraduate students who are part of Labor Summer Research program. Discussion of qualitative applied research methods used by union researchers and/or 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 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. (4) (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 policy on selected topic. May be repeated for credit. Offered in summer only. P/NP or letter grading.

250B. Interdisciplinary Seminar: Latin American Studies. (2 to 3) (Formerly numbered Labor and Workplace Studies 199B.) 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.

LA T I N  A M E R I C A N  S T U D I E S

Interdepartmental Program College of Letters and Science 10256 Bunche Hall Box 951487 Los Angeles, CA 90095-1487 Latin American Studies 310-206-6571 Program e-mail Bonnie Taub, PhD, Co-Chair Rubén Hernández-León, PhD, Co-Chair Faculty Committee Patricia Arroyo Calderón, PhD (Spanish and Portuguese) César J. Ayala, PhD (Sociology) Stephen A. Bell, PhD (Geography, History) Adriana J. Bergero, PhD (Spanish and Portuguese) Verónica Cortínez, PhD (Spanish and Portuguese) Robin L.H. Derby, PhD (History) David E. Hayes-Bautista, PhD (Health Policy and Management, Medicine) Susanna B. Hecht, PhD (Environment and Sustainability, Geography, Urban Planning) Rubén Hernández-León, PhD (Sociology) Steven J. Loza, PhD (Ethnomusicology) Elizabeth A. Marchant, PhD (Comparative Literature, Gender Studies) Katherine M. Marino, PhD (History) Jorge Marturano, PhD (Spanish and Portuguese) Cecilia Menjivar, PhD (Sociology) Paavo Monkonen, MPR, PhD (Urban Planning) José Luiz Passos, PhD (Spanish and Portuguese) Fernando Pérez-Montesinos, PhD (History) Bonnie Taub, PhD (Community Health Sciences) Kevin B. Terraciano, PhD (History)

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 their chosen fields of study. The program features more than 100 affiliated faculty from multiple departments in the humanities, social sciences, fine arts, and several professional schools.

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.

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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.

M262. HIV/AIDS and Culture in Latin America. (4) (Same as Anthropology M268B.) 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 approaches covering epidemiology, comorbidity 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.

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 examination. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous/Latin American peoples 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.


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 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.

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.
The UCLA School of Law is designed to produce lawyers who are well-prepared for the various private and public roles that are assigned to members of the legal profession. The school pioneered clinical teaching, is a leader 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 program, how to apply, and requirements is available on the school website.

Juris Doctor

Information about the 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/American Indian Studies MA
- Juris Doctor/Doctor of Education
- Juris Doctor/EDUCATION MA, 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 of Social Welfare
- Juris Doctor/Master of Urban and Regional Planning
- Juris Doctor/Philosophy PhD

Master of Laws

Information about the program, how to apply, and requirements is available on the school website.

Master of Legal Studies

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Law, Undergraduate

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

156. American Political Thought Seminar. (3) Seminar, nine hours. Examination of American political thought from founding to writings of Abraham Lincoln. Readings include Locke’s Second Treatise of Government, Declaration of Independence, Federalist numbers 10 and 51, and numerous writings and speeches of Lincoln, including extensive portions of Lincoln-Douglas debates. Emphasis on class discussion. Letter grading.

161. Consumer Bankruptcy Policy Seminar. (3) Seminar, 13 hours. Examination of consumer bankruptcy policy with one architect of 1978 Bankruptcy Code. Discussion of debt payment in ancient Babylon where spouses and siblings could be sold into slavery for nonpayment of relative’s debt. Examination of bankruptcy in U.S. history and analysis of heart of consumer bankruptcy policy, such as when debtors should be released from debts, what property debtors should keep, and how debtors can put together repayment plans. P/NP or letter grading.


163B. International Human Rights Colloquium. (1) Lecture, one hour. Prerequisite: course 163A. Continuation of course 163A. 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 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 constitutional, Reconstruction Amendments, laissez-faire constitutionalism and empire, origins of civil liberties, New Deal constitutionalism, and pre-history of Brown versus Board of Education. P/NP or letter grading.

176. Seminar: Individual Rights Protected by U.S. Constitution. (1-4) Seminar, two hours. Limited to juniors/seniors. Broad 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.

180. Special Topics in Law. (4) Lecture, four hours. Topics of special interest to undergraduate students. Specific subjects may vary each term depending on particular interest of instructors or students. May be repeated for credit. P/NP or letter grading.

187A. Legal History 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 author of papers. 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 author of papers. P/NP or letter grading.

187C. Legal History 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 author of papers. 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 written 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.
day 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


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 affairs officer 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. flirt Freshman Seminars. (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. (Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplementary 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 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.

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 Gender and Gender Studies M105A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced prerequisite: 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 English M101B and Gender Studies M105B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced prerequisite: 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 Miller, Ishi, Roger Baldwin, 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. (5) (Same as English M101C and Gender Studies M105C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced prerequisite: 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 lesbian and gay rights movement in U.S. Writings and films by such authors as Andrew Holleran, Leslie Fiedler, Achy Obejas, Essex Hemphill, Audre Lorde, Cheryl Dunye, and Alison Bechdel may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101D. Studies in Queer Literatures and Cultures. (5) (Same as English M101D and Gender Studies M105D) Lecture, four hours; discussion, one hour (when scheduled). Enforced prerequisite: English Composition 3. Variable specialized studies course in queer literatures and cultures. Enforced 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.

M107B. Studies in Gender and Sexuality. (5) (Same as English M107B and Gender Studies M107B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced prerequisite: 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 intersections of identity and works that focus on race, class, and ethnicity. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M114. Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies. (5) (Same as Gender Studies M114.) Lecture, three hours. Discussion, one hour. Introduction to history, politics, culture, and scientific study of lesbians, gay men, bisexuals, transgendered, and queer people; examination of sexuality and gender as category for investigation; interdisciplinary theories and research on minority sexualities and genders. P/NP or letter grading.

M115. Topics in Study of Sexual and Gender Orientation. (4) (Same as Gender Studies M115.) Lecture/ discussion, three hours. Topics include complex and controversial issues and debates in queer studies course. History of sexual and gender identities in U.S. Writings and films by such authors as Anita Bryant, Vito Russo, Georgia Frontiere, and James Baldwin may be included. May be repeated for credit. Letter grading.


M118. Queering American History. (4) (Same as Gender Studies M118.) Lecture, four hours. Enforced prerequisite: one prior lesbian, gay, bisexual, transgender, and queer studies course. History of sexual and gender minorities in U.S. Topics include changing norms, romantic friendships, medical discourse, liberation politics, post-Stonewall culture, AIDS, transgender movement, queer theory, and politics. P/NP or letter grading.

M125. Exploring Intersections of Ability and Sexuality. (4) (Same as Disability Studies M125.) Lecture, three hours. Exploration of identity as means of understanding cultural formations, social experiences, and power dynamics, and systems of visual representation. Intersectional approach to explore how ability and sexuality intersect, overlap, and change notions of identity. Use of scholarly texts from disability studies, lesbian, gay, bisexual, and transgender studies, popular culture, performance, and film to investigate factors that shape ability and sexuality as basis for identity. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M126. Feminist and Queer Theory. (5) (Same as English M126 and Gender Studies M126.) Lecture, four hours; discussion, one hour (when scheduled). Enforced prerequisite: English Composition 3. Recommended: one course from English 120, 121, Gender Studies 102, 103, or 104. 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 in specific historical cultures. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M132. Border Consciousness. (4) (Same as Chicana/o and Central American 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.

M135. Chicana Creative 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 aesthetics to be central theme. Discussion and analysis of Chicana/Chicano and Latino/Latinx short story collections. Peer critique of weekly writing assignments. Emphasis on narrative techniques such as characterization, setting, point of view, imagery, and dialogue, and magical realism as prevailing Chicana/Latina style. Some attention to process of manuscript preparation, public reading, and publication.

M136. Censored! Art on Trial. (4) Same as Chicana/o and Central American Studies M136.) Lecture, four hours. Examination of censorship in visual arts, particularly art of queer Chicana/Chicana and Latino/Latina artists such as Alma Lopez, Esther Hernandez, and Alex Donis. Other censored artists include feminist artist Yolanda Lopez, queer artist Robert Map-pliteplohe and David Wognarovich, painter Christ Ofili, photographer Andres Serrano, print maker Enrique Chagoya, muralist Noni Olabiis, writer Salmon Rushdie, and four performance artists—Karen Finley, Tim Miller, John Fleck, and Holly Hughes—who received their Chair of National Endow ment for Arts (NEA) in 1990 after they had successfully passed through NEA’s peer review process and who came to be known as N.E.A. Four. P/NP or letter grading.

M137. Lesbian, Gay, Bisexual, Transgender, and Queer Perspectives in Pop Music. (5) Same as Musicology M137.) Lecture, four hours; discussion, one hour. Using pop music as language to popular art in 20th century, with focus on lesbians, gay men, and members of other sexual minorities as creators, performers, and audience members. Letter grading.

M141. 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 forces of race, gender, and class constructed black women’s historical lives? How is difference constructed through interrelated and overlapping ideologies of race and gender? How do historians uncover black women’s stories and 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 participation in and challenge to social movements, including suffrage, women’s liberation, civil rights, and black power. Investigation of black women’s intellectual history, including their cultural products. Letter grading.

M142. Race, Gender, and Punishment. (4) Same as African American Studies M142.) Seminar, four hours. Interdisciplinary examination of historical and contemporaneous development of modern prison industrial complex in relation to impact of prison industrial 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 largest prison population in world? What historical conditions and ideologies gave rise to this massive explosion in U.S. prisoner populations? What policies have fueled mass imprisonment? Who is imprisoned? How has imprisonment purportedly contributed to social problems? How has 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 period? Letter grading.

M147A. Sociology of Lesbian Experience. (4) Same as Gender Studies M147A and Psychology M147A.) Lecture, two hours; discussion, one hour. Prerequisite: course M114 or Gender Studies 10 or Psychology 10. Sociological analysis of lesbian and gay communities. Discussion of research and theory in psychology and gender studies to examine various aspects of lesbian experience, impact of heterosexism/stigma, gender role socialization, minority status of women and lesbians, identity development within multicultural societies, changes in psychological theories about lesbians in sociopolitical context. P/NP or letter grading.

165SL. 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 working to begin new skills about community engagement. Offers opportunity to work in LGBTQ-related community organizations, to reflect on political and theoretical issues involved in 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.

M167. 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 transgendered people. Variables include identity and community, race and ethnicity, gender and racial diversity, and analysis of contemporary issues affecting contested sexualities. Letter grading.

170. Queer Cultures after Stonewall: Sexual Dissi- pation in the 1970s. (4) Same as Chicana/o and Central American Studies M170.) Lecture, four hours. Exploration of intense burst of culture-making among lesbians and gay men in U.S. and Canada in decade following Stonewall Rebellion in literal and performing arts through formal and theoretical analysis, exploration of gender and racial diversity, and analysis of contemporary issues affecting contested sexualities. Letter grading.

180X. Lesbian, Gay, Bisexual, and Transgender In- stitutions and Organizations. (4) Formerly numbered 180X. Lecture, three hours; discussion, two 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.

180XP. Lesbian, Gay, Bisexual, and Transgender Insti- tutions and Organizations. (4) Same as 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.

M191D. 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.

M191E. 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.

194. Research Group or Internship Seminars: Les- bian, Gay, Bisexual, and Transgender Studies. (2 to 4) Tutorial, one hour. Preparation: completion of four courses toward minor. Prerequisite: course M114. Corequ: course 195. Designed for seniors who are doing internship in lesbian, gay, bisexual, or transgender community organization. Discussion of organizational theoretical and political issues in context of internship and relation of those issues to ideas explored in minor courses already taken. May be repeated for credit. P/NP grading.

195. Community or Corporate Internships in Lesbi- an, Gay, Bisexual, and Transgender Studies. (4) Tu- torial, one hour. Preparation: completion of four courses toward minor. Prerequisite: course M114. Corequisite: course 194. Limited to seniors. Internship in supervised setting in lesbian, gay, bisexual, or transgender community organization. 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.

197. Individual Studies in Lesbian, Gay, Bisexual, and Transgender Studies. (2 to 4) Tutorial, one hour. Preparation: completion of four courses toward minor. Prerequisite: course M114. Directed program of independent study or research on specific topic within lesbian, gay, bisexual, and transgender community. 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.
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

Individual Field of Concentration BS 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

Faculty
Faculty Committee
Steven J. Bennoun, PhD (Psychology)
Siobhan A. Braybrook, PhD (Molecular, Cell, and Developmental Biology)
David A. Campbell, PhD (Microbiology, Immunology, and Molecular Genetics)
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)
Tonya L. Kane, PhD (Ecology and Evolutionary Biology)
Rachel L. Kennison, PhD (Ecology and Evolutionary Biology)
Colin T. Kremer, PhD (Ecology and Evolutionary Biology)
Frank A. Laski, PhD (Molecular, Cell, and Developmental Biology)
Jeffrey P. Maloy, PhD (Molecular, Cell, and Developmental Biology)
Jonathan D. Marcot, PhD (Ecology and Evolutionary Biology)

Lecturers
Ronald H. Cooper, PhD
Joseph Esdin, PhD
Tonya L. Kane, PhD
Hung D. Pham, PhD

Adjunct Assistant Professors
Rachel L. Kennison, PhD
Jonathan D. Marcot, PhD
Rachel E. Prunier, PhD
Sharmila Venugopali, PhD

Academic Administrators
Kaitlin I. Dixie, PhD
Gaston M.U. Pfluegl, 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 Psychology (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 progress 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 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.

Undergraduate Research Consortium in Functional Genomics

The Undergraduate Research Consortium in Functional Genomics (URCFG) offers a sequence of laboratory-intensive courses designed for undergraduate students committed to pursuing research. The innovative partnership between UCLA and the Howard Hughes Medical Institute (HHMI) was formed through a major award to professor Utpal Banerjee. The HHMI Professors Program seeks to engage leading scientists in transmitting the excitement and values of scientific research to undergraduate education. The goal of the URCFG is to emphasize the importance for academia and industry of research in the fields of medicine and biotechnology.

Sponsored by the Life Sciences Core Education Department, the URCFG offers undergraduate students from any UCLA major the opportunity to participate in cutting-edge research techniques early in their educational careers and within a structured institutional environment. Students devote between one and four terms to the study of biological research in genetics, bioinformatics, and functional genomics. The training emphasizes research concepts in basic science such as the model organism, and in advanced research techniques such as electron microscopy.

Students participate in one structured lower-division course—Biomedical Research 10H—which is limited to 30 students per term and is offered every term. After satisfactorily completing course 10H and with instructor consent, students may participate in up to three terms of upper-division research in genetics, genomics, and chemogenomics. The upper-division courses—Biomedical Research 100HA, 100HB, 100HC—do not involve pre-existing laboratory experiments. Syllabi for the courses are instead based on individual research projects whose outcomes students discover through the course of their studies. It is anticipated that only about one third of the students who complete course 10H will subsequently enroll in course 100HA, and students are advised that they can benefit significantly from course 10H alone.

Each course must be taken for a letter grade. Under special circumstances, one course may be waived for students who have prior research experience in fields covered by the course. Students who complete the required courses receive a certificate of merit indicating their completion of the consortium.

To participate, students must be accepted into the Undergraduate Research Consortium in Functional Genomics. Interested students should contact the URCFG coordinator in the Molecular, Cell, and Developmental Biology Student Affairs Office, 128A Horseshy Hall, 310-825-7109, for information regarding admission and an application. Applications are due no later than Friday of the fourth week of the term prior to the term in which students plan to enroll in course 10H.

Life Sciences

Lower-Division Courses

3A. Introduction to Molecular Biology Laboratory. (1) Laboratory, three hours; discussion, one hour. Enforced corequisite: course 3. Introductory wet-laboratory designed to prepare students for upper-division laboratory courses for all life sciences departments.

Use of wet-laboratory/bioinformatics methods and technology applicable in a variety of fields including molecular biology, microbial biology, genomic biology, bioinformatics, and psychology. Students conduct inquiry-based laboratory experiments and learn basic wet-laboratory skills to guide them in refining their skills to write their own laboratory reports and to work in groups as teams. Letter grading.

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.


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, 110 minutes. Enforced requisites: course 7A. Principles of cell and population genetics. Introduction to principles and mechanisms of evolution by natural selection, population, behavioral, and community ecology, and biodiversity, including major taxa and their evolutionary, ecological, and physiological relationships. Letter grading.

7C. Physiology and Human Biology. (5) Lecture, three hours; discussion, 90 minutes. Enforced requisites: course 7B. Organization of cells into tissues and organs and principles of physiology of organ systems. Introduction to human genetics and genomics. Letter grading.

15L. Life: Concepts and Issues Laboratory. (1) Laboratory, two hours. 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, physiology (chemistry, nutrition, reproduction, endocrinology, and neurobiology), and human behavioral biology. 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. 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 course 7C. Introductory life sciences laboratory designed for undergraduate students. Opportunity to conduct wet-laboratory and cutting-edge bioinformatics laboratory experiments. Students work in groups of three conducting 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 mod-
eling as tool for understanding dynamics of biological systems. Fundamental concepts of single-variable 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 methods of linear transformations to equip students with some basic tools to understand dynamics of multivariable nonlinear differential equations that arise in ecology, physiological, chemical, and other systems. Letter grading.

32B. Essential Calculus for Mathematical Biologists. (4) (Same as Computational and Systems Biology M32 and Mathematics M32T.) Lecture, three hours; discussion, one hour. Requisites: courses 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 with emphasis 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 Maclaurin series, vector fields, gradients, and Lagrange multipliers. P/NP or letter grading.

40. Statistics for Biological Systems. (5) Lecture, three hours; laboratory, two hours. Requisite: course 30A. Designed for biological 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 of elementary statistics. 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.

101. Career Exploration in Life Sciences. (2) Seminar, two hours. Recommended for sophomores and incoming transfer students. Designed to help life sciences students expand awareness of their interests, needs, and skills to make deliberate career choices. Introduction to many components that go into making effective career decisions to help students explore diversity of career options for life sciences majors. P/NP grading.

130. Science Classroom Observation and Participation. (1) Seminar, one hour. Preparation: completion of three of mathematics and/or science courses at level required of science majors. Observation, participation, and assisting in science classes at elementary, 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 social systems, supervisory relationships, and race and ethnicity in combination with variety of other factors create differential quality and access to healthcare resulting in differential health outcomes for racial/ethnic minorities. Basic foundation for critical thinking about assumptions that shape life sciences, medical research, clinical practice, and social and behavioral sciences as they relate to SE racial/ethnic minority populations and to teach 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.

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, develop 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.

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. 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 undergraduate 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.

M192A. Introduction to Collaborative Learning Theory and Practice. (Formerly numbered 192A.) (Same as Chemistry M192E, Computer Science M192A, and Physics M192S.) Seminar, one hour. Training seminar for undergraduate students who are selected for learning assistant (LA) program. Exploration of current topics in pedagogy and education research focused on methods of learning and their practical application in small-group settings. Students practice skills with frequent assessment of and feedback on progress. Letter grading.

192B. Methods and Application of Collaborative Learning Theory in Life Sciences. (3) Seminar, one hour; clinic, six hours. Requisites: course 192A (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. 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 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, nine hours. Requisites: course 192A (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. 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 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. (3) Seminar, three hours; clinic, three hours. Requisites: course 192A (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. 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 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. (3) Seminar, one hour; clinic, six hours. Requisites: course 192A (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. 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 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.
Linguistics
College of Letters and Science
3125 Campbell Hall
Box 951543
Los Angeles, CA 90095-1543
Linguistics
310-825-0634
Department e-mail
Patricia A. Keating, PhD, Chair

Faculty Roster

Professors
Idan A. Blank, PhD, in Residence
Bruce P. Hayes, PhD (Theresa McShane Biggs and Henry P. Biggs Centennial Term Professor of Linguistics)
Sun-Ah Jun, PhD
Patricia A. Keating, PhD
Jody E. Kreiman, PhD, in Residence
Anoop K. Mahajan, PhD
Jessica L. Rett, PhD
Carson T. Schütze, PhD
Yael Sharvit, PhD
Dominique L. Sportiche, PhD
Megha Sundara, PhD
Kie Ross Zuraw, PhD

Professors Emeriti
Raimo A. Anttila, PhD
Susan R. Curtis, PhD

Thomas J. Hinnebusch, PhD
Nina M. Hyams, PhD
Edward L. Keenan, PhD
Hilda J. Koopman, PhD
H. Craig Melchert, PhD (A. Richard Diebold, Jr., Endowed Professor Emeritus of Indo-European Studies)
Pamela L. Munro, PhD
Edward P. Stabler, PhD
Timothy A. Stowell, PhD

Associate Professors
David M. Goldstein, PhD
Jesse A. Harris, PhD
Timothy Hunter, PhD
W. Harold Torrence, PhD

Assistant Professors
Dylan T. Bumford, PhD
Stefan Keine, PhD
Claire Moore-Cantwell, PhD
Laurel L. Perkins, PhD
Ethan J. Poole, PhD

Lecturer
Benjamin J. Lewis, MA

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 Biomedical Engineering, American Indian Studies, Asia Institute, and African Studies. 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 American Indian languages).

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, syntax, and the way they encode meaning.
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

**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.

**Policies**

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).

**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: one introduction to linguistic course, two courses from symbolic logic, introductory psychology or psychological statistics, or cultural anthropology, 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.

**The Major**

**Required:** Eleven upper-division or graduate courses including Linguistics 103, 120A, 120B, 120C, two courses from 104, 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).

**Policies**

No more than one course from 197, 198A, 198B, and 199 may be applied toward the major.

One linguistics-related course (minimum 4 graded units) offered by another department may be applied toward the elective in consultation with the Linguistics Department undergraduate student affairs officer.

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 104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

**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

**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.

**Policies**

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).

**Transfer Students**

Transfer applicants to the Applied Linguistics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of one foreign language or one year of two different foreign languages, one introduction to linguistics course, one introduction to psychology course, and one introduction to linguistic anthropology course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** Ten upper-division courses as follows: Linguistics 102 (or 103), 119A (or 120A), 120B, 130 or C140, three courses selected from Linguistics 104, 115, 130, C140, M141, M145, 170, two upper-division elective courses taught in the Linguistics Department (minimum 4 graded units each), and one course selected from Anthropology 151, M152P, 152Q, 152R, 153, 154P, 154Q, M156, M158, Arabic 180, 181, Armenian 110, Chicana/o and Central American Studies 164XP, M167XP, M170XP, Communication 119, M125, M144A, French 105, German 140, Hebrew 180A, 180B, Iranian 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.

**Policies**

No more than one course from 197, 198A, 198B, and 199 may be applied toward 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 104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Linguistics and Anthropology BA
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 use it in research

Preparation for the Major
Required: Anthropology 4, 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.

Policies
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).

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: two years of either Chinese, Japanese, or Korean, one 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.

The Major
Required: Eleven upper-division courses as follows: Linguistics 102 (or 103), 110B, 119A (or 120A), 120B or 127, 114B (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).

Policies
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 104, 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

Policies
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).

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, one 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.

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, CM120, 130A, 130B, 165; for the Japanese track: Japanese 100A, 100B, 100C (or 100S); two courses from Asian 104, Japanese 101A, 101B, 101C, 110A, 110B, 110C, CM120 (or 121), 130A, 130B; for the Korean track: Korean 100A, 100B, 100C, two courses from Asian 104, Korean 101A, 101B, 101C, 103A, 103B, 103C, 105A, 105B, 110, 120, 121, 122.

Policies
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 104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

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

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.

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.

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 104, 127, 132, 165A, 165B, 165C, 180, 185B; Computer Science 131, 132 or 161, 180, 181.

Policies
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.

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

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.

Policies
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).

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.

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 M170, 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).

Policies
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.

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 104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Linguistics and French BA
The major combines the basic courses of the general linguistics program with that of French. Students are able to gain practical competence and basic knowledge of French, and enrich their knowledge about the nature, grammar, and history of human language at the same time.
Learning Outcomes
The Linguistics and French 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

Preparation for the Major
Required: Linguistics 20, French 1, 2, 3, 4, 5, 6, 12, completion of the equivalent of the third term of a second foreign language.

Transfer Students
Transfer applicants to the Linguistics and French 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 French, one introduction to linguistics course, one French literature 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.

The Major
Required: Eleven upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A (or 165B), one upper-division elective in linguistics, French 100, 101, 105, 107, and one elective upper-division French course beyond the sixth term.

Policies
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 188A and 188B 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 104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Linguistics and Italian BA
The major combines the basic courses of the general linguistics program with that of Italian. Students are exposed to Italian civilization, language and literature as well as enrich their knowledge about the nature, grammar, and history of human language at the same time.

Learning Outcomes
The Linguistics and Italian 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

Preparation for the Major
Required: Linguistics 20, Italian 1, 2, 3, 4, 5, 6, Latin 1, 2, 3, one cultural anthropology course.

Transfer Students
Transfer applicants to the Linguistics and Italian 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 Italian, one year of Latin, one introduction to linguistics course, and one cultural anthropology course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Twelve 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), two upper-division electives in linguistics, Italian 102A, 180, and three upper-division electives in Italian.

Policies
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 188A and 188B 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 104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

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

Preparation for the Major
Required: Linguistics 20, 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.

Policies
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).

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 introduction to philosophy of mind, philosophy of science, skepticism and rationality, meaning and communication, or language and identity, 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.
The Major

Required: Eleven upper-division courses as follows: Linguistics 102 (or 103), 119A (or 120A), 120B, 120C, 165B (or 165C or 180), one upper-division elective in the Linguistics Department (minimum 4 graded units); five upper-division philosophy courses in selected from Philosophy 124 through 135, 170, 172, 174, 180, 181, 184, of which at least two must be from C127A, C127B, 172.

Policies

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 104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major 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

Preparation for the Major

Required: Linguistics 20, Psychology 10, 85, 100A, 100B, 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. Program in Computing 10A is strongly recommended.

Policies

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).

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.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven upper-division courses (six in linguistics and five in psychology) as follows: Linguistics 102 (or 103), 119A (or 120A), 120B, two of 115, 130, 132, C135, or C140, and one upper-division elective course in the Linguistics Department (minimum 4 graded units; multiple-listed courses may not be applied), Linguistics 165A, 165B, and whichever of 130, 132, and C135 has not been used to satisfy the requirement, are strongly recommended. Also required are Psychology 120A, 121, one course selected from Psychology 130, 133B, or 133E, and two elective courses selected from Psychology 115, 116A, M117C, 118, M119L, 124A, 124C, 130, 133B, 133C, 133E, 133F, 186A, 186B.

Policies

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 104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Linguistics and Scandinavian Languages BA

The major combines the basic courses of the general linguistics program with that of Scandinavian languages. Students are able to learn about Scandinavia through the study of its languages and literatures, as well as enrich their knowledge about the nature, grammar, and history of human language.

Learning Outcomes

The Linguistics and Scandinavian Languages 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

Preparation for the Major

Required: Linguistics 20, Scandinavian 1, 2, and 3, or 11, 12, and 13, completion of the equivalent of the third term of a second foreign language.

Transfer Students

Transfer applicants to the Linguistics and Scandinavian Languages 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 Swedish, Norwegian, or Danish; 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.

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 linguistics, three courses from Scandinavian 105A, 105B, 105C, 197 (in a topic related to Scandinavian linguistics, under the direction of a Scandinavian or Linguistics faculty member), and two upper-division electives in Scandinavian.

Policies

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 104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

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, literature, 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

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.

Policies
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).

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.

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.

Policies
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 104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Undergraduate Minor

Linguistics Minor
The Linguistics minor is designed for students for whom training in linguistic analysis could be an enhancement to their major programs, and for students who are interested in language(s) but do not have time in their undergraduate programs to pursue multiquarter language sequences. In addition, the minor provides students with a way to design custom joint degrees with linguistics where the Linguistics Department does not have an existing joint degree program combining linguistics and another field.

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):** 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 104 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
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

Program Requirements
Official, specific degree requirements are detailed in the program requirements for UCLA graduate degrees, available at the Graduate Division 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. **Intensive Elementary American Sign Language.** (15) Lecture, 20 hours. 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.
Linguistics

Lower-Division Courses

1. Introduction to Study of Language. (5) Lecture, three hours; discussion, one hour. Survey of 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 diverseness; language in social and cultural setting; language in relation to other aspects of human inquiry and knowledge. P/NP or letter grading.


4. Language and Evolution. (5) (Formerly numbered 14.) (Same as Indo-European Studies M70.) Lecture, four hours; discussion, one hour (when scheduled). Basic concepts and tools of evolutionary theory and linguistics relevant to how organisms with linguistic abilities could evolve, and how particular languages, as cultural artifacts, survive and change so rapidly. P/NP or letter grading.

5. World Languages. (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 and types. 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 pidgins and creoles, unaffiliated 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 language, most complex 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 words and rules for producing and 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.

7. Language and Identity. (5) (Same as Philosophy M424.) Lecture, four hours; discussion, one hour (when scheduled). How do we use language to 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 subordination of women; marginalizing of racial minorities; and, in some cases, incitement to violence through hate speech. Provides foundation for study of gender, philosophy, linguistics, and communication studies. 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.

9. Linguistic Humor: Amusing and Abusing with Language. (5) Seminar, five hours. Requires: English Composition 3. Study of how principles of science of language 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 structures, syntax, semantics, phonology, and morphology. Discussion of how language is adapted to humor purposes, albeit shaped by culture as to what counts as funny. Satisfies Writing II requirement. P/NP or letter grading.

M10. Structure of English Words. (8) (Same as English M40.) Lecture, four hours; discussion, one hour. Introduction to structure of English words of classical origin, including most common base forms and rules by which alternate forms are derived. Students may expect to achieve substantial enrichment of their vocabulary while learning about etymology, semantic change, and abstract rules of English word formation. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, three hours. Limited to freshmen/sophomores. Variable 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 Anthropology 40W.) Lecture, six hours. Enforced requisite: English Composition 3. Prior knowledge of foreign languages not required. Introduction to linguistic sociolinguistic perspective of gender. Use of research and examples in English and other languages to explore nature of male and female genderlects and gendered language, as reflected in lexicon, language behavior, phonetics and intonations, and language acquisition and linguistic change. Satisfies Writing II requirement. 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 departmental faculty 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 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. 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 credit with topic change. P/NP or letter grading.

97. Variable Topics in Linguistics. (1 to 4) Seminar, three hours; fieldwork, two hours. Variable topics of current intellectual importance, taught by departmental faculty. 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. Honors credit awarded for topic seminars under guidance of faculty mentor. Students must be in good academic standing and en-
115. Linguistics and Speech Pathology. (2 or 4) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 102 or 103. Introduction to field of speech pathology. Topics include biological foundations of speech, language, and hearing; and disorders such as voice, speech, and hearing, affecting children and adults. In-class presentation and final term paper required if taken for 4 units. P/NP or letter grading.


120A. Phonology I. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20 or grade of B– or better. 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: courses 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). Requisite: course 20. Study of essential similarities and differences among languages in grammatical de- devices they use to signal the following kinds of con- cepts: relationships of persons and verbs (case and word order), negation, comparison, existence/localiza- tion/possession, causation, interpretation, reflexiviza- tion, relativization, attribution (adjectives), time (tense and aspect), and order of grammatical constituents. Data from a range of languages presented and analyzed. P/NP or letter grading.

C128A-C128B. Romance Syntax. French. (4–4) Lecture, four hours; preparation: some knowledge of French or one Romance language. Enforced requisite: course 120B. Course C128A is enforced requisite to C128B. Aspects of structure of French language, with emphasis on properties of construction not found in English. Concurrently scheduled with courses C228A-C228B. P/NP or letter grading.

130. Language Development. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20, 119A or 120A, 119B or 120B. Survey of research and theoretical perspectives in language de- velopment in children. Discussion and examination of child language data from English and other languages. Emphasis on content of development. Topics include infant speech perception and produc- tion, development of phonology, morphology, syntax, and word meaning. 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 is- sues in language comprehension and production, with emphasis on how theories in linguistics inform process- ing models of language (e.g., speech act theory with emphasis on spoken language), parsing, anaphora and inferencing, speech error models of sentence production, and computation of syntactic structure during production. P/NP or letter grading.

C13G. Neurolinguistics. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20, 119A or 120A, 119B or 120B. Examination of relationship between brain, language, and linguistic theory, with evidence presented from atypical lan- guage development and langua- ge disorders. Concurrently scheduled with course C235. P/NP or letter grading.

C140. Bilingualism and Second Language Acquisi- tion. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20, 119A or 120A, 119B or 120B. Introduction to study of child- hood bilingualism and child second language (L2) ac- quisition, 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 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 models related to teaching (2) current theory and practice underlying skills-based instruction and integrated approaches, and (3) factors that affect second language acquisition and learning. Develop- ment of knowledge base in and rational base for de- sign, development, implementation, and evaluation of second language instruction programs. P/NP or letter grading.

144. Fundamentals of Translation and Interpreting. (5) Lecture, four hours; discussion, one hour. Recommended requisites: French (or one Romance language). Enforced requisite: course 20. Examination of salient lexical, structural, cultural, and sociolinguistic aspects of translating and interpreting be- tween two languages or dialects. Survey of develop- ment of translation theories and rise of community in- terpreting and critical role of language brokering. 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 lan- guages (ancient and modern), including their relation- ships, chief characteristics, writing systems, and soci- olinguistic contexts; nature of reconstructed Indoeuro- pean proto-language and proto-culture. One or more Indo-European languages may be investigated in detail. P/NP or letter grading.

M161. Language Documentation. (5) Lecture, four hours; discussion, one hour (when scheduled). Recommended requisites: courses 20, 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.

160. Field Methods. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced 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). Requisites: courses 20 (enforced), and 105 or 119A or 120A. Issues in documenting languages, including collection of field data using linguistic field methods, orga- nizing data into documents (annotated texts, dictio- naries, multimedia presentations, technical articles), analysis of language documentation (e.g., study of target language, linguists, scholars outside linguistics, gen- eral public), presentation and storage of documents (paper publication, online publication, electronic and physical archives), endangered lan- guages, and organizations and initiatives for docu- menting endangered languages. Presentations focus
586 / Linguistics

on case studies. Students project in assembling primary data and creating annotated texts with commentary. P/NP or letter grading.

165A. Phonology II. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 120A. To be taken in following completion of course 120A or as soon as possible thereafter. Further study in phonological theory and analysis: autosegmental theory, syllable structure, metricity 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 following completion of course 120B or as soon as possible thereafter. Further study in syntax and semantics. P/NP or letter grading.

165C. Semantics II. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 120C. Recommended for students who plan to do graduate work in linguistics. Form of grammars, word formation, formal and substantive universals in syntax, relation between syntax and semantics. P/NP or letter grading.


167B. Structure of Japanese. (4) (Same as Japane- CM123.) Lecture, three hours; discussion, one hour. Enforced requisite: Japanese 4 or 10 or Japane- nese placement test. Functional linguistic analysis of grammatical structures of Japanese, often in form of case studies of history of English pronunciation, lexicon, and syntax. P/NP or letter grading.


167D. Morphology. (4) Lecture, three hours; discussion, one hour. Recommended preparation: two years of Korean or one year of Japanese and knowledge of Hangul, or two years of Korean and knowledge of Hiragana. Prior linguistic background also recommended. Critical reading and discussion of selected topics in morphology of Japanese. Syllable structure, stress. S/U or letter grading.

168B. Computational Linguistics I. (5) Lecture, four hours; laboratory requisites: courses 120B, Program in Computing 10C (or Computer Science 32). Recommended: course 165B or 200B. Overview of formal computational ideas underlying kinds of gram- mars used in theoretical linguistics and psycholinguistics, and some connections to applications in natural language processing. Topics include recursion, relationship between probabilities and grammars, and parsing algorithms. P/NP or letter grading.

168S. Computational Linguistics II. (5) Lecture, four hours; discussion, one hour (when scheduled). Requi- site: course 168A. Extension of material in course 168A, with emphasis on computational analysis of current tools and frameworks used in linguistic theory and their cognitive interpretations. P/NP or letter grading.

185A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: Honors Collegium 101E. Limited to senior or graduate students. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepara- tory syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

185B. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 185A. Enforced requisite: Honors Collegium 101E. Limited to senior or graduate students. 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.

185C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 185A. Limited to junior or 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.

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 toward degree with different title and students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, one hour. Limited to students in College Honors Program. De- signed as adjunct to upper-division lecture course. In- dividends 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.


191B. Variable Topics Research Seminars: Linguistics. (2 or 4) Seminar, three hours. Research seminar on selected topics. Reading, discussion, and develop- ment 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 juniors/seniors. Training and supervised practicum for advanced un- dergraduate students in linguistics courses. Students assist in preparation of materials and develop- ment of innovative programs under guidance of facul- ty and teachers and teaching assistants. May not be applied toward course requirements for any Linguistics Department major. Individual contract required. Information and contracts may be obtained from Linguistics Department. P/NP grading.

194. Research Group Seminars: Laboratory Re- searc in Linguistics. (1 to 6) Lecture, one hour; labor- atory, three to six hours. Students actively partici- pate in experimental, computational, or fieldwork lin- guistics research, and have opportunity to learn va- rieties of data gathering, data archiving, and data analysis in diverse environments of the laboratory or other collaborative environment. Students may be involved in various kinds of research methods, including ad- ministering experiments, data analysis, and/or partici- pating in corpus annotation. Students are expected to attend regular laboratory meetings, if offered. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. P/NP grading.

195. Community or Corporate Internships in Lin- guistics. (2 to 4) Tutorial, to be arranged. Preparation: 100- or 101-level course in major. Limited to junior/sen- ior majors. Internship in supervised setting in commu- nity agency or business related to linguistics and/or applied linguistics. Students meet on regular basis with instructor and provide periodic reports of their ex- perience. Additional supervision to be provided by in- ternship site supervisor. Individual contract with su- pervising faculty member required. P/NP grading.

196. Internships in Linguistics. (4) Tutorial, four hours. Requisite: course 1 or 20. Limited to juniors/seniors. Individual intensive study, with sched- uled meetings to be arranged between faculty mem- ber 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: 100- or 101-level course in major. Limited to junior/senior majors. Enforced 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 taken. Limited to juniors/seniors. Development of honors thesis or compre- hensive research project on linguistic topic se- lected by student under direct supervision of faculty member. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. In Progress grading (credit to be given only on comple- tion of course 198B).

198B. Honors Research in Linguistics II. (2) Tuto- rial, to be arranged. Requisite course 198A. Limited to juniors/seniors. Completion of honors thesis or compre- hensive research project begun in course 198A under direct supervision of faculty member. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Lin- guistics. (4) Tutorial, to be arranged. Limited to senior Linguistics majors. Supervised individual research or investigation of linguistic topic selected by student under guidance of faculty mentor. Culling paper required. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Phonological Theory I. (4) Lecture, four hours. Preparation: graduate linguistics student or grade of A in course 120A 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 120B or equivalent course in syntax. In- depth introduction to selected topics in theory of con- stituent structure and syntax of predicates, argu- ments, and grammatical structures. Course may include levels of representation, X-bar theory, case theory, thematic roles, the lexicon, grammatical function- changing rules, head-complement relations. S/U or letter grading.

200C. Semantic Theory I. (4) Lecture, four hours. Overview of current results and research methods in linguistic semantics. Topics include general quanti- ties and semantic universum (truth conditions and structures, variable binding and pronounization, formal semantic interpretation, syntax and LF, tense, ellipsis, and focus. Letter grading.

201A. Phonological Theory II. (2 to 4) Lecture, four hours. Preparation: course 200A. Continuation of course 200A. Second course in two-course survey of current research in phonological theory. Topics include au- tosegmentalism (tone, tiers, segment structure), fea-
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 topological categories: WH-movement 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; prosodic gaps; barriers theory; control theory; null subject parameters (S/U 2-unit course) and S/U or letter grading (4-unit course).

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 grading (4-unit course).


203. Phonetic Theory. (4) Requisite: course 120A. Preliminaries to speech analysis. Functional anatomy of vocal tract and larynx. Requisites: 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.

204A. Experimental Phonetics. (4) Lecture, three hours. Requisite: course 103. Use of laboratory equipment to investigate articulatory, acoustic, and perceptual properties of speech. Topics include experimental design and statistics; theoretical basis of acoustic structure of speech sounds; computer-based speech processing, analysis, and modeling; perceptual and acoustic evaluation of synthetic speech. 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 as related to linguistic phonetics. 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, electroglottograph, static and electronic manipulators, electromagnetic articulography, and imaging techniques. S/U or letter grading.

204C. Speech Perception. (2 to 4) Lecture, four hours. Recommended requisite: course 104 (or 204A) or 111 (or 211). Limited to graduate students. Survey of topics in speech perception research. Topics include auditory, psychological, phonological, and sociolinguistic aspects of speech perception, and cross-linguistic speech perception and word recognition. 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. Recommended requisite: course 201C. Introduction to formal pragmatic theory. Topics include speech act theory, imperatives, and other illocutionary moods; at-issue/not-at-issue distinction and other projective content; speech acts; 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 (PF and LF), rule and/or constraint based systems, deixis systems, and types of sentence complements. 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 lexical restriction 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 space to be covered. S/U or letter grading.

210A. Field Methods I. (4) Lecture, four hours. Preparation: grade of B or better in course 103 or in examination on practical phonetics. Requisites: courses 200A, 200B. Analysis of a language unknown to members of class 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 in preceding term. Because different languages are investigated in different years, course 210B can only be taken as direct continuation of 210A in same year. When there are multiple sections, continuation must be in same section. May be repeated for credit with topic change. S/U or letter grading.

211. Intonation. (4) Lecture, two hours; laboratory, two hours. Requisite 120B. Survey of intonational theory for English and other languages, with particular emphasis on phonological models of intonation. Laboratory used for recording and analyzing intonation, and students learn to transcribe intonational elements. 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 power. Also, some assumptions about information provided by environment. S/U or letter grading.

213A. Grammatical Development. (4) Requisites: courses 200A, 200B. Recommended: course 130 or 135. Survey of the current status of contemporary empirical research in development of syntax and other components of grammar, with particular emphasis on acquisition theory, linguistic theory, and development in children. Letter grading.


213C. Linguistic Processing. (4) Lecture, four hours. Requisites: courses 165B and/or 200B. Recommended: course 213A. Introduction to theoretical and contemporary empirical research in human processing of language (comprehension and/or production), with emphasis on syntactic processing, sentence error models, and noise loading, and relationship between grammar and processor. S/U or letter grading.

214. Survey of Current Syntactic Theories. (4) Lecture, four hours. Requisite: course 213B. Survey of several theories of syntax, and one another and with theory discussed in course 213B, from point of view of theories' relative descriptive and explanatory power. S/U or letter grading.

215. Syntax/Philosophy of Language. (4) Lecture, four hours. Requisite: course 200B. Current results in word-order universals; genetic classification of world's 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 complements. S/U or letter grading.

216. Syntactic Theory III. (2 or 4) Lecture, four hours. Requisite: course 218B. Selected topics on syntactic theories of anaphor and quantifier from the following areas: typography of binding categories (pronouns, anaphors, etc.); theory of locality conditions in binding theory; parametric variation in binding; quantifier movement; existential quantifier unselective binding; strong and weak crossover; superiority; scope interactions; complex quantifier structures. S/U (2-unit course) or letter grading (4-unit course).

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 formal and natural sound systems, 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 distinctive features formalism and related formal and natural sound systems, and 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 210A. Current research and issues in phonological theory. Topics include structure of phonological representations, relations between representations, architecture of grammar, and explanations for phonological typology. S/U (2-unit course) or letter grading (4-unit course).

220. Linguistic Areas. (4) Requisites: courses 120A, and 120B or 127. Recommended: courses 165A or 200A, 165B or 200B. Description and classification of languages spoken in a particular area (e.g., Africa, the Balkans, South Asia, Southeast Asia, Australia, Aboriginal North America, Aboriginal South America, Far East). May be repeated for credit with topic change.

221. Linguistic Structure. (4) Lecture, four hours. Requisites: courses 120A, 120B, 120C, and 127. Recommended: courses 165A or 200A, 165B or 200B. Phonological and grammatical structure of a selected language and its genetic relationships to others of its family. May be repeated for credit with topic change. S/U or letter grading.

C228A-C228B. Romance Syntax. French. (4-4) Lecture, four hours. Preparation: some knowledge of Frenc h, perceptual and natural order and relationships among linguistic and psychological structures, including properties of construction not found in English. Concurrently scheduled with courses C128A-C128B. S/U or letter grading.

230. History of Linguistics. (4) Requisites: courses 200A, 200B. Aspects of history of linguistics. Different course offerings may be made with different areas of linguistic interest (e.g., syntax, semantics) or with different historical time periods. May be repeated for credit with topic change.

232. Language Processing. (5) Lecture, four hours; laboratory, one hour. Central issues in language comprehension and production from an inter- theoretical perspective. Topics include word understanding (with emphasis on spoken language), parsing, anaphora and discourse coherence, and computation of syntactic structure during production. S/U or letter grading.

C235. Neurolinguistics. (5) Lecture, four hours; discussion, one hour. Prerequisites: 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. Largely approaches methodologies to investigate normal and atypical hemispheric specialization for language and children and adults with acquired and/or congenital disorders. Concurrently scheduled with course C135. Graduate students expected to read more advanced neurolinguistic literature and produce research papers of greater depth. S/U or letter grading.

236. Computational Phonology. (4) Lecture, four hours. Introduction to computational models of phonology and phonological acquisition. Topics include finite state machines, probabilistic automata, over-constraining, and phonological acquisition. Topics include finite state machines, probabilistic automata, over-constraining, and phonological acquisition. May not be applied toward MA or PhD degree requirements when taken for 2 units. 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. Meets 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. Meets with course 254A. May be repeated for credit. S/U grading.

256A-256B-256C. 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.

265A-265B-265C. American Indian Linguistics Seminar. (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 degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

269A-269B-269C. 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.

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.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeiship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


411A-411B. Research Orientation. (2–2) Designed for graduate students. Sequence of lectures by department faculty and/or visiting scholars and students with research directions and resources of department and elsewhere on campus. May not be applied toward MA or PhD degree requirements. S/U grading.

422. Practicum: Phonetic Data Analysis. (2) Designed for graduate students. Workshop in examination of phonetic data, such as sound spectrograms, oscillographic records, and computer output. May not be applied 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 research career development, etc. 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 to 8) Preparation: concurrently, UCLA graduate students may take graduate or graduate-level courses at USC, with approval of assistant 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 Studies. (1 to 8) Preparation: completion of all undergraduate deficiency courses. Directed individual study or research. May be applied toward MA course requirements. May be repeated for credit. S/U grading.

596B. Directed Linguistic Analysis. (1 to 8) Preparation: completion of MA degree requirements. Intensive work with native speakers by students individually. May be repeated for credit. S/U grading.

597. Preparation for MA Comprehensive and PhD Qualifying Examinations. (1 to 8) Preparation: at least six graduate linguistics courses. May be taken only in terms in which students expect to take comprehensive or qualifying examinations. May not be applied toward MA course requirements. May be repeated for credit. S/U grading.


599. Research for PhD Dissertation. (1 to 16) Preparation: advancement to PhD candidacy. May not be applied toward PhD course requirements. May be repeated for credit. S/U 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


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.

MANAGEMENT

John E. Anderson Graduate School of Management

G415 Marion Anderson Hall
Box 951481
Los Angeles, CA 90095-1481

Management

310-825-7982

Sanjay Sood, PhD, Chair

Faculty Roster

Professors

Reza H. Ahmadi, PhD (George Robbins Professor of Management)
John W. Asker, PhD
Corinne B. Bendersky, PhD
Daniel J. Benjamin, PhD
Antonio E. Bernardo, PhD (John E. Anderson Professor of Management)
Sushil Bhikhchandani, PhD (Howard Noble Professor of Management)

Randolph E. Bucklin, PhD (Peter W. Mullin Professor of Management)
Felipe Caro, PhD (Bing '86 and Alice Liu Yang Endowed Term Professor of Management)
Judson A. Caskey, PhD
Michael E. Chen, PhD
Mikhail Chernov, PhD (William C. Corden Professor of Money and Financial Markets)
Charles J. Corbett, PhD (IBM Professor of Management)
Samuel A. Cubert, PhD
Magali A. Delmas, PhD
Sanford J. Devoe, PhD
Aimee L. Drolet Rossi, PhD (Marion Anderson Professor of Management)
Sebastian Edwards, PhD (Henry Ford II Professor of International Management)
Andrea L. Eisdeldt, PhD (Laurence D. and Lori W. Fink Endowed Professor of Finance)
Christopher L. Erickson, PhD
Craig R. Fox, PhD (Harold Williams Professor of Management)
Stuart A. Gabriel, PhD (Arden Realty Professor)
Mark J. Garmaise, PhD
Paola Giuliani, PhD
Noah J. Goldstein, MA, PhD (Bing '86 and Alice Liu Yang Endowed Term Professor of Teaching Excellence)
Carla Hayn, PhD (Ernst & Young Professor of Accounting)
Hal E. Hershfield, PhD (UCLA Anderson Board of Advisors Term Professor of Management)
Catherine M. Holmes, PhD
Uday S. Karmarkar, PhD (Los Angeles Times Professor of Management and Policy)
Marvin B. Lieberman, PhD (Henry and Elsa Kunin Professor of Business and Society)
Francis A. Longstaff, PhD (Allstate Professor of Insurance and Finance)
John W. Mamer, PhD
Alfred E. Osborne, Jr., PhD
Stavros Panageas, PhD
Kumar Rajaram, PhD (William E. Leownik Professor of Management)
Peter E. Rossi, PhD (James A. Collins Professor of Management)
Mariko Sakakibara, PhD (Sanford and Betty Sigoloff Professor of Corporate Renewal)
Rakesh K. Sarin, PhD (Paine Professor of Management)
Margaret J. Shih, PhD
Sanjay Sood, PhD
Olav Sorenson, PhD (Joseph Jacobs Professor of Entrepreneurial Studies)
Avanidhar Subrahmanyam, PhD (Goldyne and Irwin Hearsh Professor of Money and Banking)
Christopher S. Tang, PhD (Edward W. Carter Professor of Business Administration)
Miguel M. Unzueta, PhD
John D. Villasenor, PhD
Nico Voigtlander, MSc, PhD (UCLA Anderson Dean’s Term Professor of Management)
Romain T. Wacziarg, MA, PhD (Hans Hufschmid Professor of Management)
Ivo I. Welch, PhD (J. Fred Weston Professor of Finance)
Robert Zethammer, PhD

Professors Emeriti

Shlomo Benartzi, PhD
Michael J. Brennan, PhD (Goldyne and Irwin Hearsh Professor Emeritus of Money and Banking)
Bhagwan Chowdhry, PhD
Lee G. Cooper, PhD
Bradford Cornell, PhD
Michael R. Darby, PhD (Warren C. Corden Professor Emeritus of Money and Financial Markets)
José de la Torre, DBA
David K. Eiteman, PhD
Donald Erlenkotter, PhD
Eric G. Flamholz, PhD
Arthur M. Geoffrion, PhD
Robert L. Geske, PhD
Martin Greenberger, PhD (IBM Professor Emeritus of Computers and Information Systems)
Mark S. Grinblatt, PhD (Japan Alumni Professor Emeritus of International Finance)
Dominique M. Hanssens, PhD (Bud Knapp Marketing Professor Emeritus)
Alfred E. Hofflander, PhD
John S. Hughes, PhD (Ernst & Young Professor Emeritus of Accounting)
Sanford M. Jacoby, PhD (Howard Noble Professor Emeritus of Management)
Harold H. Kassarjian, PhD
Archie Kleingartner, PhD
J. Clayburn La Force, Jr., PhD
Barbara S. Lawrence, PhD
Edward E. Learner, PhD (Chauncey J. Medberry Professor Emeritus of Management)
Bennet P. Lientz, PhD
Steven A. Lippman, PhD (George Robbins Professor Emeritus of Management)
Kevin F. McCordie, PhD
John J. McDonough, DBA
Bill W. McKeelvey, PhD
Bruce L. Miller, PhD
Daniel J.B. Mitchell, PhD (Ho-Su Wu Professor Emeritus of Management)
Frank G. Mittelbach, MA
Donald G. Morrison, PhD (William E. Leownik Professor Emeritus of Management)
Judy D. Olian, PhD
William G. Ouchi, PhD (Sanford and Betty Sigoloff Professor Emeritus of Corporate Renewal)
William P. Pierskalla, PhD
Richard W. Roll, PhD (Joel Fried Professor Emeritus of Applied Finance)
Richard P. Rumelt, DBA (Harry and Elsa Kunin Professor Emeritus of Business and Society)
Eduardo S. Schwartz, PhD (California Professor Emeritus of Real Estate and Land Economics)
Carol A. Scott, PhD
John P. Shelton, PhD
Suzanne B. Shu, MEng, MBA, PhD
E. Burton Swanson, PhD
Victor C. Tabbush, PhD
Walter N. Torous, PhD (Lee and Seymour Graff Endowed Professor Emeritus)
Brett M. Trueman, PhD (Lee and Seymour Graff Endowed Professor Emeritus)
Bruce G. Willisn, MBA

Associate Professors

Anand V. Bodapati, PhD
Eugene M. Caruso, PhD

Professors Emeriti

Shlomo Benartzi, PhD
Michael J. Brennan, PhD (Goldyne and Irwin Hearsh Professor Emeritus of Money and Banking)
Bhagwan Chowdhry, PhD
Lee G. Cooper, PhD
Bradford Cornell, PhD
Michael R. Darby, PhD (Warren C. Corden Professor Emeritus of Money and Financial Markets)
José de la Torre, DBA
David K. Eiteman, PhD
Donald Erlenkotter, PhD
Eric G. Flamholz, PhD
Arthur M. Geoffrion, PhD
Robert L. Geske, PhD
Martin Greenberger, PhD (IBM Professor Emeritus of Computers and Information Systems)
Mark S. Grinblatt, PhD (Japan Alumni Professor Emeritus of International Finance)
Dominique M. Hanssens, PhD (Bud Knapp Marketing Professor Emeritus)
Alfred E. Hofflander, PhD
John S. Hughes, PhD (Ernst & Young Professor Emeritus of Accounting)
Sanford M. Jacoby, PhD (Howard Noble Professor Emeritus of Management)
Harold H. Kassarjian, PhD
Archie Kleingartner, PhD
J. Clayburn La Force, Jr., PhD
Barbara S. Lawrence, PhD
Edward E. Learner, PhD (Chauncey J. Medberry Professor Emeritus of Management)
Bennet P. Lientz, PhD
Steven A. Lippman, PhD (George Robbins Professor Emeritus of Management)
Kevin F. McCordie, PhD
John J. McDonough, DBA
Bill W. McKeelvey, PhD
Bruce L. Miller, PhD
Daniel J.B. Mitchell, PhD (Ho-Su Wu Professor Emeritus of Management)
Frank G. Mittelbach, MA
Donald G. Morrison, PhD (William E. Leownik Professor Emeritus of Management)
Judy D. Olian, PhD
William G. Ouchi, PhD (Sanford and Betty Sigoloff Professor Emeritus of Corporate Renewal)
William P. Pierskalla, PhD
Richard W. Roll, PhD (Joel Fried Professor Emeritus of Applied Finance)
Richard P. Rumelt, DBA (Harry and Elsa Kunin Professor Emeritus of Business and Society)
Eduardo S. Schwartz, PhD (California Professor Emeritus of Real Estate and Land Economics)
Carol A. Scott, PhD
John P. Shelton, PhD
Suzanne B. Shu, MEng, MBA, PhD
E. Burton Swanson, PhD
Victor C. Tabbush, PhD
Walter N. Torous, PhD (Lee and Seymour Graff Endowed Professor Emeritus)
Brett M. Trueman, PhD (Lee and Seymour Graff Endowed Professor Emeritus)
Bruce G. Willisn, MBA
Undergraduate Minors

Accounting Minor

The Accounting minor provides students with a comprehensive accounting background.

Admission
To enter the minor, students must have (1) a minimum cumulative UCLA grade-point average of 3.2, (2) complete all required pre-admission courses with a minimum course grade-point average of 3.2, and (3) receive grades of B or better in Management 1A and 1B. Repetition of more than one pre-admission course or 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.

Required Pre-admission Courses (31 units minimum):
- Economics 1, 2, any statistics course of 102, 107, and any upper-division course taken at UCLA may be substituted.
- Management 108, 109, 123, 124, 126, 128, 250 (or their equivalents).
- At least one course in financial accounting taken at UCLA.

A minimum of 20 units applied toward the minor must be in addition to units required in the major.

The Minor

Required Upper-Division Courses (36 units): Management 120A, 120B, 122, 127A, and three courses from 108, 109, 123, 124, 126, 127B, 127C, 128, 130A.

A minimum of 20 units applied toward the minor must be in addition to units required in the major.

Transfer credit for any of the above courses is subject to department approval and is considered only for the pre-admission courses. Only one pre-admission and one upper-division course repeat are allowed.

Policies
Each pre-admission and upper-division course must be taken for a letter grade; if taken on a Passed/Not Passed basis, it cannot be applied toward the minor program. Each upper-division course must be completed at UCLA. All courses applied toward major requirements must receive a grade of C or better. Successful completion of the minor is indicated on the transcript and diploma.

Entrepreneurship Minor

See the Entrepreneurship section for a description of the minor.
Graduate Majors

Business Analytics MS

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Executive Master of Business Administration

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Fully Employed Master of Business Administration

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 financial statements 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 minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses


121. Ethical Leadership in Accounting. (4) Lecture, seven and one half hours. Not open to freshmen. Review of range 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; job costing and process costing; accounting for manufacturing overhead; cost budgeting; cost reports; joint cost accounting; distribution cost; standard costs; differential cost analysis; profit-volume relationships and break-even analysis. P/NP or letter grading.

123. Accounting. (4) Lecture, three hours. Requisite: course 120B. Comprehensive study of procedures in verification of financial statements and related information, including ethical, legal, and other professional issues. An audit 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 problems encountered 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 127A. Recommended: course 127A. Study of tax issues arising in formation, operation, and termination 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. Recommended requisite: course 127A. Study of two principle areas of international taxation from U.S. regulatory perspective: U.S. 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 120B. Selected topics in public accounting, such as audit and fraud examination, mergers and acquisitions, intragroup 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.

130A. Basic Managerial Finance. (4) Lecture, three hours. Requisites: course 1B, one statistics course. 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 varied analytical techniques employed in decision making. P/NP or letter grading.


142A. Information Technology in Accounting. (4) Lecture, seven and one half hours. Not open to freshmen. Introduction to role and use of models and modeling in managerial decision making, with focus on important types of models, their formulation and application, and insight and information that may be gained from use of modeling. Enables managers to understand role of quantitative models in firms that are most often applicable in business planning and decision making. Discussion of applications in area of ac- counting, finance, marketing, and operations, with emphasis on model formulation, interpretation of solu- tions, and understanding of mathematical versus verbal explanation of situations. Use of solution tech- niques and computer to solve problems. Offered in summer only. Letter grading.

142B. Communication Technology, Programming, and Accounting. (4) Lecture, six hours. Preparation: intermediate programming. Requisites: course 142A (or former 142). Not open to freshmen. Hands-on experience in accounting uses of Microsoft Excel. Topics in- clude creating data boxes in financial accounting, updating and formatting financial statements, and using professional quality financial reports, creating graphs to interpret business results, and using Excel functions to evaluate financial data. Exploration of utility of QuickBooks and functionality for small businesses. Offered in summer only. P/NP or letter grading.

159. Foundations of Business and Entrepreneur- ship. (4) Lecture, three hours. Introductory overview of core issues of business including accounting, finance, marketing, operations, organiza- tion behavior, and strategy. Discussion of concepts in context of large existing organizations, small busi- nesses, and new 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; discussion, one hour. Introduc- tion to key concepts of entrepreneurship, including new product development, finance, business plan de- velopment, and commercialization. Basic tools and personal characteristics required for entre- preneurship. Terminology used by lawyers, accoun- tants, venture capitalists, and other investors when forming new companies. Students gain hands-on experience in identifying components of business as well as how organizations are managed in increasingly competitive and global economy. Letter grading.

161. Business Plan Development. (4) Lecture, three hours. Enforced requisite: course 160. Fundamentals of developing effective business plans, both in presen- tation and written format. Basic principles of designing and articulating plans, product or service, operations, financials, marketing, and staffing functions of new startup businesses. How to develop well-written investment-quality business plans and business plan presentations, understand various analytical processes required to produce such plans, improve student writing and oral presentation skills, and formally present their business plans to au- dience of angel and venture capital investors. Letter grading.

162. Entrepreneurship and Technology Commer- cialization. (4) Lecture, three hours. Designed for ju- nior/ seniors. Introduction to transformation of new knowledge and technology into viable commercial products and services, with particular emphasis on technology being developed at major research univer- sities like UCLA. Initial emphasis on assessment and protection of intellectual property, and early evaluation of technologies to determine potential for commercial- ization. How intellectual property in various forms is protected and how rights to these assets are negoti- ated by parties involved. Examination of nature of contracts and negotiation between university tech- nology transfer offices, researchers, technical experts, and early investors in commercialization space that might lead to successful outcomes, or new business de- velopment. 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 man- agers in identifying, developing, and commercializing new products through cases, businesses currently in the news, team project, and readings to develop critical thinking, decision-making skills, and creativity in launch of successful new product (team project). Letter grading.


167. Social Entrepreneurship. (4) Lecture, three hours. Designed for juniors/seniors. Examination of funda- mental challenges and opportunities of developing socially thankful businesses. Use of framework to develop strategic implementation plan that incorporates external analysis, organizational as- sessment, strategy development, and executable ac- tion plans. Introduce analytical framework and practice of faculty members and alumni as well as experts in fields of social entrepreneurship, nonprofit manage- ment, and strategic philanthropy who present select topics of interest. Letter grading.

168. Personal Financial Health: Theory and Prac- tice. (4) Lecture, three hours. Helps develop class of financially literate students who will be financially se- cure today and in the future. Students gain knowledge, skills, and planning tools in understanding financial futures and have potential to prosper. Covers many fi- nancial decisions made by entrepreneurs. Interplay between financial conditions of business and financial situation of owner is something that many entrepre- neurs fail to plan for when they launch new business. Specific topics covered include budgeting, time value of money, installment purchases, protection of assets, emphasis of investing, retirement and estate planning, psychology of money, income taxes, banking, and credit. Topics from behavioral finance include subop- timal spending, mistakes investors make, and money and happiness. Letter grading.

169. Entrepreneurial Leadership and Practical Ex- perience. (4) Lecture, three 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 following experiences: internship at off-site en- trepreneurial firm, or active pursuit of entrepreneurial startup idea. Real-world experience supplemented with theoretical knowledge on entrepreneurial leader- ship, ethics, and professional branding. Letter grading.

170. Real Estate Finance and Investments. (4) Lecture, three hours. Exploration of fundamentals of resi- dential and commercial real estate finance, invest- ment, and development. Study of qualitative concepts and quantitative tools necessary to develop real estate decision-making skills. Analysis of variety of case studies of finance, investment, and development proj- ects from U.S., Europe, China, and Japan that high- light opportunities, risks, challenges, and solutions. Emphasis on application of quantitative and qualitative Excel models to understand and evaluate fi- nancial aspects of transactions, consideration of mac- roeconomic context, and discussion of its potential impact on real estate finance and investment deci- sions. P/NP or letter grading.

180. Special Topics in Management. (4) Lecture, four hours. Topics of special interest to undergraduate students. Specific subject may vary from year to year depending on particular interest of instructors or stu- dents. May be repeated for credit. P/NP or letter grading.
182. Leadership Principles and Practice. (4) Lecture, six hours. Prerequisites: good performance, persuading, and influencing others; leading high-performance teams; creativity and innovation; decision-making, and negotiating skills, both one-on-one and in groups. Organizational examples, simulations, and in-class exercises. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enrolled corequisite: Honors College Program. 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 evidence-based solutions. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enrolled corequisite: course 188SA. 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. Enrolled 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.

189A. Social Entrepreneurs 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.

189B. Social Entrepreneurs Seminars. (2) Seminar, three hours. Limited to 20 students. Designed as doctoral-level dissertation work. Enrolled corequisite: course 403. Focus primarily on cases. Research should be recorded to facilitate both. Essentials of entrepreneurship. Letter grading.

190A-209B. Managing Complex Business Deals. (209A: 3 or 4/209B: 1 or 2) 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 return. Topics include venture capital investments, debt and loan agreements, employment agreements, distribution and marketing agreements (including franchising), franchise agreements, and joint ventures. Assigned reading and focus on documents that incorporate terms of business transactions of deals. Concurrently scheduled with Law 239. Progess (209A) and S/U or letter (209B) grading.

214. Managerial Decision Making. (4) Lecture, three hours. Introduction to principles of rational judgment and choice, common behavioral biases of managers and consumers, and corrective tools and procedures, drawing from behavioral economics and behavorial economics. Topics include decision structuring, chance processes, forecasting, confidence, judgment, 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.

215A. Negotiations Analysis. (4) Lecture, three hours. Series of negotiation exercises to foster development of students' negotiation skills and experience. Use of economic and game-theoretic concepts in debrief to enhance understanding of negotiation processes. Emphasis on real-world applications and behavioral economics. Topics include decision structuring, chance processes, forecasting, confidence, judgment, 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.


217A. Decision Analysis. (4) Lecture, three hours. Prerequisite: course 402. Managerial decision making occurs in presence of uncertainty which can be about events over which no individual has any control or it can be about what other individuals will do. Framework work for structuring and analyzing such decisions, with application of framework to such scenarios as product development, litigation, business of treating hunting, and bidding. 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 that can meaningfully inform business strategy formulation. Pedagogical approach is firm-focussed in learning. Use of a variety of real-world examples to gain practice with quantitative 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. Prerequisite: course 403. In-depth treatment of significant corporate financial reporting issues to enhance understanding of financial statements and student ability to interpret and 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. Prerequisite: 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. S/U or letter grading.

223. Choice Architecture in Practice. (4) Lecture, three hours. Leverages behavioral science principles to improve real-world applications. Through partnerships with health, government, and industry contacts, students work in teams to identify behavioral problems within organizations; test and guide implementation of evidence-based solutions. Provides structured on-ramp to skilled application of behavioral insight in real-world contexts. Ideal for students who want to weave rigorous behavioral insight into their emerging leadership style. Letter grading.

224. Business Law for Managers and Entrepreneurs. (4) Lecture, three hours. Introductory course that uses practical approach to teach students to recognize, understand, and manage legal issues. Topics include conduct and agency, intellectual property, unfair competition, antitrust, corporate and franchise law, related and alternative, and antitrust, intellectual property law, business formation, corporate law, employment law, collateral lending, and bankruptcy and 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 legal, financial, and management issues confronting nonprofit organizations. Topics include how to create nonprofit tax-exempt organizations, qualifying and maintaining tax-exempt status under IRC Code Section 501(c)(3), corporate governance, political and legislative activity restrictions, and strategic planning, fundraising, non-profit accounting, and employment law. S/U or letter grading.

226. Special Advanced Topics in Accounting. (4) Lecture, three hours. Prerequisite: course 403. Examination of advanced topics in accounting that arise in business combinations and international accounting practices, including principles under consolidated financial statements, treatment of unconsolidated subsidiaries and affiliate investments, translation of foreign exchange, and valuation of derivatives for hedging exchange risk. S/U or letter grading.

227. Taxation and Management Decisions. (4) Lecture, three hours. Prerequisite: course 403. Examination of impact of taxes on decisions of businesses and individuals, mergers and acquisitions, capital structure, dividend policies, and employee compensation. S/U or letter grading.

228. Financial Statement Analysis. (4) Lecture and discussion, six hours. Prerequisites: courses 402 and 403. Focus principally on equity valuation from financial accounting data, with emphasis on construction of proforma financial statements and application of discounted cash flow and residual income valuation approaches. Consideration of complications posed by capital structure, recapitalizations, derivative securities, intercorporate investments, abandonment options, ac-
counting economic events, and equity trading. Use of multiples in valuation and pricing anomalies. S/U or letter grading.


241D. Patterns of Problem Solving. (4) Lecture, three hours. Acquisition of strategies that enhance problem solving and decision making 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 are present. Letter grading.


263A. Consumer Behavior. (4) Lecture, three hours. Requisite: course 411. Study of social and determinants of consumer behavior. Emphasis on influence of consumer psychological factors, such as needs, values, and attitudes; social groups, demographic variables, social class, and cul-ture on formation of consumers’ attributes, consumption, and purchasing behavior. S/U or letter grading.
264A. Market Research. (4) Lecture, three hours. Requisite: course 411. Designed for prospective users of research results rather than for specialists in research. Marketing research is aid to management decision making. Development of problem-analysis skills, presentation of concepts and methods of marketing research, with increased sensitivity to limitations of marketing data. Letter grading.


265. Brand Management. (4) Lecture, three hours. Requisite: course 411. Introduction to considerations in development, implementation, and management of brands. Discussion of challenges to creating and maintaining strong brands. Topics include building brand knowledge and identities, mixing marketing and brands, brand architectures, and brand equity. Letter grading.

266A. New Product Development. (4) Lecture, three hours. Requisite: course 411. Examination of new product development (NPD) process with objective of learning key tools and methods and applying them to case studies, exercises, and course project. Products viewed from quantifiable rational attributes, an emotional and aesthetic perspective. Letter grading.


266B. Advertising and Marketing Communications. (4) Lecture, three hours. Enforced prerequisite: course 411. Exploration of case studies of decision-making in advertising and promotion. Use of statistical analysis and data from advertising and marketing communications to develop integrated strategies. Review of use and effectiveness of advertising and communication tools. Evaluation of advertising and promotional policies from development through implementation. Letter grading.

267. Digital Marketing Analytics. (4) Lecture, three hours. Enforced prerequisite: course 402, 411. Use of notions of consumer life cycle as organizing principle and application to digital marketing context. Frameworks and data-analytical tools for interacting with customers and lead generation. Use of references to the case experience through four stages of customer life cycle: (1) customer acquisition, (2) customer retention and loyalty, (3) customer attrition or transition behavior, and (4) customer reacquisition or switch to other product lines. S/U or letter grading.

268. Selected Topics in Marketing. (4) Lecture, three hours. Requisite: course 411. Study of selected areas of marketing knowledge and thought. Specific subjects vary each term depending on particular interests of instructor and students. Individual projects and reports may be required. S/U or letter grading.


M271B. Medtech Innovation II: Entrepreneurial Opportunities in Medical Technology. (4) Same as Bioengineering M233A. Lecture, three hours: outside study, laboratory, and discussion, six hours. Designed for graduate and professional students in engineering, dentistry, design, law, management, and medicine. Focus on understanding how to identify unmet clinical needs, properly filtering through 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 medical devices that increase quality of clinical care and result in improved patient outcomes in hospital systems. Introduction to intellectual property basics and various medtech business models. 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. 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 emerging technologies and developing markets. Topics vary. May be repeated for credit. S/U or letter grading.

M277. Real Estate Finance Law. (1 to 8) (Same as Law M220) Lecture, three hours. Concentrated study of law governing financing of land transactions from both national and California perspectives. Topics include California deed of trust, installment land contracts, condominiums, real estate purchase and sale agreements, rents, receiviorships, prepayment, foreclosure, priorities, California antideficiency legislation, impact of borrower bankruptcy on mortgage lenders, construction lending, future advances lending, and secondary market. S/U or letter grading.

277A-277B. Real Estate Finance Law. (277A: 3 or 4/277B: 1 or 2) Lecture, three hours. Course 277A is enforced requisite to 277B. Concentrated study of law governing real estate finance. Topics include (1) national and national perspectives. Topics include California deed of trust, installment land contracts and other mortgagee assignments of rents, receiviorships, prepayment, 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.

278A. Urban Real Estate Financing and Investing. (4) Lecture, three hours. Requisites: courses 408, 430. Investor-oriented course in which real estate and business economics trends are evaluated to determine alternative real estate investment opportunities. Use of current financial, economic, and investment theories and techniques to real estate investment opportunities in case studies. Students will learn to illus- trate development of investment strategies. S/U or letter grading.

279A. Cases in Real Estate Investments. (4) Lecture, three hours. Requisites: courses 408, 430. Development of understanding of principal issues involved with real estate investment and finance. Topics include real estate financial analysis and valuation in variety of contexts (single and multifamily residential, commercial, investment, and industrial, and real estate taxation, real estate law, development process, securitization, REITs, and leasing and workout of troubled properties. S/U or letter grading.

279B. Entrepreneurial Real Estate Development. (4) Lecture, three hours. Requisite: course 279A. 408, 430. Introduction to various aspects of real estate development from perspectives of entrepreneur and investor. Coverage of all types of developments, including single family, multifamily, hotel, office, retail, and industrial. Industry guest speakers to help reinforce principles taught. Real estate development simulation and group presentations to panel of investors included. S/U or letter grading.

281B. People in Organizations. (4) Designed for graduate students. Introduction to different philosophical perspectives for understanding human behavior. Theory, discussion, and application allows understanding human behavior in organizations, as well as managerial implications of individual, group, and social behavior. Special attention to knowledge about satisfaction, motivation, and productivity in organizations.

282. Optimizing Team Performance. (4) Lecture, three hours. Enforced requisites: courses 409, 414A. Optimization of team performance by diagnosing complex team dynamics and taking appropriate action to strengthen team function and efficiency. Students strengthen their teamwork skills in ways that are proven to increase effectiveness and performance of teams. Letter grading.

284C. Managing Entrepreneurial Organizations. (4) Lecture, three hours. Designed for graduate students involved in developing and managing entrepreneurial organizations. Topics include organizational growth, managerial tools, strategic planning, organizational design, management development, control systems, leadership, and cultural management. Examination of transitions that individuals must make as organizations grow. S/U or letter grading.

285A. Leadership, Motivation, and Power. (4) Discussion, three hours. Designed for graduate students. Theoretical and practical approaches to influencing and motivating people. Relative effectiveness of various motivational theories and power tactics from managerial point of view. Use of experiential-based learning methods to aid diagnosis and understanding of one's own influence styles. S/U or letter grading.

285B. Managerial Interpersonal Communication. (4) Discussion, three hours. Designed for graduate students. Interpersonal and personality factors affecting managerial communications. Styles and methods for effective communication in group, team, large-systems settings. Opportunities offered to deepen understanding of one's own communication styles and skills, considering verbal, nonverbal, personal, and cross-cultural aspects. S/U or letter grading.

286. Negotiations Behavior. (4) Discussion, 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 exper- iential learning (i.e., negotiations simulations). Participants learn not only to enhance their individual abilities in dyadic and group situations, but also to analyze contexts for most effective application of these skills. S/U or letter grading.

291. Strategies for Technology-Based Corporate Development. (4) Lecture, three hours. Enforced requisite: course 420. Focus on key aspects of corporate business development transactions, including strategic deal selection, mergers and acquisitions deal integration, deal structure (including accounting and tax issues), and economic analysis of transactions. Examination of technology and digital media markets. Letter grading.

M293A. Political Environment of American Business. (4) (Same as Public Policy M281.) Lecture, three hours. Evaluation of certain criticisms made by business of American political system. Designed to provide clearer understanding of principal features of American political system and how they influence business enterprise. S/U or letter grading.

293C. Ethical Considerations in Business. (4) Lecture, three hours. Examination of a range of ethical considerations in business decisions including the individual, corporation, society, and international business. Analysis of cases for classroom presentation and discussion.

294. Law and Economics Workshop. (2 or 3) Seminar, two hours. Requisite: course 405 or Economics 201A. Knowledge of empirical methods and basic calculus required. Interdisciplinary speaker series bringing together outside speakers with scholars and students from UCLA Law School and academic departments. Topics include contracts, torts, intellectual property, and business law. Students write graded reaction papers. May be repeated for credit. Concurrently scheduled with Economics 206 and Law 648. S/U or letter grading.


295B. Small Business Management. (4) Exploration of crucial aspects in managing small business enterprises. Emphasis on identification and analysis of characteristic operating problems of small firms and application of appropriate methods or techniques for their solution.

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 different business models for social impact and to fundamental opportunities and constraints in developing, funding, managing, and scaling enterprises with social mission. Through lectures, readings, case studies, speakers and research project, exploration of competitive advantages and limitations of different approaches to creating social impact across sectors—private-for profit, public, and nonprofit. Introduction of frameworks for understanding social impact problems facing society and cultivation of critical thinking skills to identify diverse ways to address those problems through sustainable programs and enterprises. Letter grading.

296A. International Business Management. (4) Discussion, three hours. Identification, analysis, and resolution of managerial issues of policy and action within context of a multinational corporation, with emphasis on problems of adaptation to different sociocultural, cultural, legal, political, and economic environmental characteristics on planning, structuring of organizational relationships, and coordination and control in multinational firms. S/U or letter grading.

297B. International Business Strategy. (4) Discussion, three hours. Identification, analysis, and resolution of key strategic problems encountered by multinational corporations entering foreign markets. Application of concepts and theories acquired in other courses to series of complex cases on international activities or by use of a complex simulation of competition in global markets. Letter grading.

297C. International Business Law. (4) Requisites: courses 295A, 295A. Legal environments in which international business operates; overseas business relationships and organizations; antitrust, taxation, transfer of capital, and technology regulations; patent, trademark, copyright, and other aspects of international business disputes; expropriation 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 legal entities; terms/conditions for technology transfer, management control, terms/conditions for technology transfer, investment incentives.

297E. Business and Economics in Emerging Markets. (4) Lecture, three hours. Requisite: course 295A or 405. Analysis of changing economic, political, 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, 90 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. Letter 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, 90 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, one hour. Designed for graduate students. In Progress grading (credit to be given only on completion of courses 457B, 457C, and 457D).

422. Analysis and Communications. (4) Discussion, three hours. Designed for graduate students. Study and practice of oral and written management communication, including audience analysis, persuasion, revising and editing, presentation of technical information, effective use of computer technology in writing and speaking. Personal attention to students' written communications and oral presentations.

424. Strategic Business Presenting. (2) Lecture, 90 minutes. Improvement of strategic business presenting skills such as presentation delivery techniques, visual and verbal persuasion principles, building arguments with supporting evidence, art of business storytelling, and other related topics. Focus on individual student presentations. Letter grading.


427. Global Access Program. (8) Fieldwork, 60 hours. Requisites: courses 402, 403, 405, 408, 409, 410, 411, 414A, 420. Limited to Fully Employed MBA program students. Must be taken as part of Fall Quarters in second year. Faculty-guided consulting project with international company or U.S. company with international project focus. Establishment of client relationship, project identification, project development, feasibility analysis, design of study, collection and analysis of secondary and primary research data, development of comprehensive business plan, and formal presentation of findings and recommendations. Letter grading.


455E. International Exchange Program. (2 to 16) Lecture, 30 hours; discussion, 10 hours. Students attend up to four MBA-level courses at institutions with exchange agreements with Anderson School. Some courses may be taught in English, and in addition to learning subject matter of courses, provides opportunity for students to enhance their knowledge of region while exchanging ideas and views with their peers at that institution. S/U or letter grading.

457A. Fieldwork in Investment Management. (2) Formerly numbered 457.) Seminar, two hours; fieldwork, one hour. Four-term course. Introduction to academic theories of portfolio management and management structure. Review of literature to identify investment strategies. Knowledge transfer and training before outgoing and incoming class leadership transition. In Progress grading (credit to be given only on completion of courses 457B, 457C, and 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 for firsthand guid- ance. 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 comple- tion of course 457D).

457D. Fieldwork in Investment Management. (2) Seminar, two hours; activity, one hour. Four-term course. Cumulation and transition of portfolio management project. Formal presentation to incoming class and delivery of annual report. Training of incoming class with knowledge transfer and dissemination of tools for back testing. Letter grading.
458A-458B. Global Immersion: Two-Quarter Plan. (2–2) For course 458A: lecture, three hours; presentations, site visits, and discussion, 20 hours; for course 458B: fieldwork, three hours; presentations, site 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, company site visits, with focus on doing business in other countries. Exposure to economy, legal and political environment, major industries and businesses, local culture, key historical events, and current events, with emphasis on promoting business outside U.S. Taught by school faculty members in conjunction with lectures by faculty members from top international institutions, 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 programs. One-week study at a national university. Courses taught by faculty members from partner institution in destination country. Topics vary but are tailored to MBA curriculum. S/U or letter grading.

460A-460B. Managing Finance and Financing of Emerging Enterprises. (2–2) Lecture, three hours. Course 460A is enforced requisite to 460B. Designed for second-year graduate students. Emphasis on financial and investment issues, and rapid growth and expansion of 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 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 case work. 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 decision making. Major economic indicators and their historical description of 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: MBA Program. (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 courses taught by faculty members from partner institutions in destination country. Topics vary but are tailored to MBA curriculum, including but not limited to finance, marketing, global economics, strategy, human resources management, and technology management. Exposure to local business practices, company site visits, and exploration of local culture and historical sites. S/U or letter grading.

Management–Executive MBA

Course 402. Data Analysis and Management Decisions under Uncertainty. (4) Formerly numbered Management 463.) Lecture, four hours. Limited to Executive MBA program students. Survey of statistical model building, with emphasis on managerial decision making, with an emphasis on statistical summary of data. Classical statistics covered through multiple regression to support courses in finance and marketing that follow. Fundamental approaches to decision making under uncertainty. S/U or letter grading.


405. Economic Analysis for Managers. (4) Formerly numbered Management 462.) Lecture to Executive MBA program students. Policy-oriented problems in taxation, antitrust, and government regulation and antitrust, securities regulation, environmental regulations, and a business firm’s optimal response to regulation.

408. Financial Policy for Managers. (4) Formerly numbered Management 468A.) 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 casework. S/U or letter grading.

409. Organizational Behavior. (4) Formerly numbered Management 469.) Lecture, three hours. Limited to Executive MBA program students. Introduces students 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 self-appraisal. Letter grading.


411. Marketing Strategy and Policy. (4) Formerly numbered Management 472A.) 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 development. S/U or letter grading.

414A. Leadership Foundations I. (2) Formerly numbered Management 461A.) Lecture, two hours. Limited to Executive MBA program students. Focus on individual problem-solving and decision-making skills. Alternative conceptual frameworks for augmenting diagnostic and decision-making skills of individuals. Use of readings, cases, 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) Formerly numbered Management 461B.) Lecture, one hour. Limited to Executive MBA program students. Reinforcement 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 problem solving and decision making. Fostering team and team trust, self-actualization, and self-development. Readings, cases, decision simulations, peer coaching, and discussions. In Progress grading (credit to be given only on completion of course).

414C. Leadership Foundations III. (1) Formerly numbered Management 461D.) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 414B. Further exploration of leadership strength and weaknesses, focusing on individual peer coaching, conflict management, individual goal setting, and goal achievement. Readings, cases, decision simulations, peer coaching, and discussions. S/U or letter grading.

Management–Executive MBA

Course 402. Data Analysis and Management Decisions under Uncertainty. (4) Formerly numbered Management 463.) Lecture, four hours. Limited to Executive MBA program students. Survey of statistical model building, with emphasis on managerial decision making, with an emphasis on statistical summary of data. Classical statistics covered through multiple regression to support courses in finance and marketing that follow. Fundamental approaches to decision making under uncertainty. S/U or letter grading.
on career development, social networks, and organizational design. Readings, cases, decision simulations, peer coaching, and discussions. In Progress grading (credit to be given only on completion of course 414E).

41E. Leadership Foundations III. (1) (Formerly numbered Management 461E.) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 414D. Further exploration of leadership strengths and weaknesses, with emphasis on individual leadership and organizational change. Readings, cases, decision simulations, peer coaching, and discussions. S/U grading.

420. Competitive Strategy and Business Policy. (4) (Formerly numbered Management 476) Limited to Executive MBA program students. Study of general management task of forging a corporate competitive strategy. Emphasis on economics of business rivalry within a variety of industrial settings and implications of changing environments on business strategy.

421. International Business Residential. (4) (Formerly numbered Management 470D.) Seminar, six hours. Limited to Executive MBA program students. Focuses on doing business globally. Includes on-campus sessions and intensive week of study in another country with lectures, guest speakers, panel discussions, and company site visits. Exposure to economic, legal and political environments, major industries and businesses, local culture, key historical events, and many aspects of conducting business internationally. Taught by school faculty members in conjunction with lectures by faculty members from institutional partners, as well as local and regional government officials and ministers, local business executives, and influential leaders from around the world. S/U or letter grading.

422. Leadership in Practice. (4) Lecture, six hours. Limited to Executive MBA program students. Addresses practical decision-making challenges leaders face when confronting decisions alone and in groups. Students develop cognitive biases in themselves and in others and gain skills to re-calibrate group dynamics in order to achieve better results. These skills are taught experientially through participatory simulations and post-hoc analyses. Letter grading.

428A-428B. Business Creation Capstone. (6–4) Lecture, three hours; fieldwork, three hours. Limited to Executive 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 MBA graduation requirement. In Progress (428A) and letter (428B) grading.

439. 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.

440. Selected Topics in Management. (2) Seminar, three hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.

441. Selected Topics in Management. (1) Seminar, two hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

442. 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. S/U grading.

443. Selected Topics in Management. (2) Seminar, three hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.

444. Selected Topics in Management. (1) Seminar, two hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.

445A. Introduction to Strategic Management Research. (2) (Formerly numbered Management 470A.) Fieldwork, two hours. Limited to Executive MBA program students. Methods of organizational and strategic analysis to determine relationship of organization with its environment (credit to be given only on completion of courses 445B and 445C).

445B. Strategic Management Research. (4) (Formerly numbered Management 470B.) Fieldwork, four hours. Limited to Executive MBA program students. Preparation of strategic overview of selected company, entailing collection and analysis of primary and secondary data, including (but not limited to) interviews of corporate executives, corporate financial and marketing data, and in some cases secondary data, including established client/consultant relationships and/or surveys. In Progress grading (credit to be given only on completion of course 445C).

445C. Strategic Management Research. (4) (Formerly numbered Management 470C.) Fieldwork, four hours. Limited to Executive MBA program students. Further research and analysis of one strategic issue facing selected company and identified in course 445B. Presentation of final reports and evaluation of student efforts by corporate personnel. S/U or letter grading.

Management—Full-Time MBA

Graduate Courses

410A–410B. Leadership Foundations. (1–4) Three-day residential format (course 410A) and lecture, three hours (course 410B). Managing and working with people with emphasis on development of individuals, leadership and interpersonal relationships, and group dynamics in complex organizational settings. In Progress (410A1) and letter (410B) grading.

402. Data and Decisions. (4) (Formerly numbered Management 402.) 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.

403. Financial Accounting. (4) (Formerly numbered Management 403) Lecture, three hours. Designed for graduate students. Introduction to fundamental financial accounting methods and procedures, with emphasis on financial statements. Provides basis for firm understanding of language of business—accounting. Letter grading.

405. Managerial Economics. (4) (Formerly numbered Management 405.) 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 competition, market power, and externalities. Letter grading.

408. Foundations of Finance. (4) (Formerly numbered Management 408.) Lecture, three hours. Introduction to managerial finance. Topics include time value of money, discounting and present values, valuation of bonds and stocks, risk and return, construction of optimal portfolios, capital budgeting, and weighted average cost of capital. Letter grading.


410. Operations Technology Management. (4) (Formerly numbered Management 410.) Lecture, three hours. Designed for graduate students. Principles and decision analysis related to effective utilization of factors of production 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.


421A. Communication Development for Leaders I. (2) (Formerly numbered Management 421A) Lecture, three hours. Course 421A is requisite to 421B. Focus on communication basics designed to assist students' needs—entrepreneurial, interpersonal communications, or public speaking. Students learn skills required to become successful presenter; how to present powerful types of media; communication theory and strategy to organize informative and persuasive content, and effectively deliver presentations to varied audiences; how to apply visual and verbal messaging research findings to analyzing audiences, organize and target messages for maximum persuasive impact, and communicate these messages in persuasive manner. Letter grading.

421B. Communication Development for Leaders II. (2) (Formerly numbered Management 421B) 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 the organization, 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 from Communication Development for Leaders I (course 421A). Letter grading.

444B. Applied Management Research. (8) (Formerly numbered Management 445.) Lecture, eight hours. Limited to full-time MBA program students. Must be taken in second year (or its equivalent for part-time students). Supervised study of an organization including establishing research questions, identification of problems or strategic questions, design of study, collection and analysis of data, development and reporting of implementable recommendations. Letter grading.

443A. Introduction to Applied Management Research. (2) (Formerly numbered Management 444A.) Lecture, two hours. Limited to full-time MBA program students. Must be taken after completion of first year in program. Methods of organizational and strategic analysis to determine relationship of organization with its environment. In Progress grading (credit to be given only on completion of courses 443B and 443C).

423D–423C. Applied Management Research: Two-Quarter Plan. (4–4) (Formerly numbered Management 444B–444C.) Fieldwork, four hours. Limited to full-time MBA program students. Must be taken after completion of first year in program or (1) faculty-guided consulting project with private companies, nonprofit organizations, or government agencies; establishment of client relationships, identification of problem, design, research plan, data collection and analysis of secondary and primary research data, development of comprehensive business plan, and formal presentation of findings and recommendations to company team; or (2) faculty-guided implementation of one new business or (3) pursuit of one faculty-led special project of worthy of publication in recognized academic journal. In Progress (423B) and S/U or letter (423C) grading.
426. Fieldwork in Organizations. (4) Formerly numbered Management 454.) Fieldwork, to be arranged. Preparation: completion of at least two terms of MBA program. Learning experience designed to help students test and develop personal and professional skills and to 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. Letter grading.

428A–428B. Business Creation 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. Student teams work on business idea and 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) Three-day residential format. Managing and working with people, with emphasis on motivation and development of individuals, leadership and interpersonal relationships, and emphasis on motivation and development of individuals, leadership and interpersonal relationships, and group dynamics in complex organizational settings. Letter grading.

402. Data and Decisions. (4) Formerly numbered Management 402.) Lecture, three hours. Topics include probabilities, random variables (expectation, variance, covariance, normal random variables), decision trees, estimation, hypothesis testing, and multiple regression methodology. Emphasizes application of statistical 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 interpersonal skills and group decision-making situations and to analyze contexts for most effective application of these skills. Letter grading.

407A-407B. Entrepreneurship and Venture Initiation I, II. (2–2) Formerly numbered Management 457A–457B.) Lecture, 90 minutes. Course 407A is requisite to 407B. Limited to UCLA-NUS Executive MBA program students. Introduction to tools and jargon required for entrepreneurship that requires financing or management of intellectual property. Terminology used by lawyers, accountants, venture capitalists, and other investors. Focus on financial structuring and financing new companies. Assessment of feasibility of business concept and communication of concept to potential investors, employees, and business partners. In Progress (407A) and letter (407B) grading.

410. Logistics and Operations Management. (4) Formerly numbered Management 474.) Lecture, three hours. Limited to UCLA-NUS Executive MBA program students. Analysis of strategic and operating policies and systems for physical distribution and service and systems. Examination of role of comprehensive planning, inventories, scheduling of resources, distribution systems, and system location. Comprehensive operating problems. S/U or letter grading.

412. Management of Technology and Innovation. (4) Formerly numbered Management 483.) Lecture, three hours. Designing and managing technological innovation in Asia. Topics include incorporation of technological consideration into strategy, adoption of technological innovation, promoting innovation through organizational design and leadership, e-business, and business models. Letter grading.

439. 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.

440. Selected Topics in Management. (2) Seminar, three hours. Limited to UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

441. Selected Topics in Management. (1) Seminar, two hours. Limited to UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

442. 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. S/U grading.

443. Selected Topics in Management. (2) Seminar, three hours. Limited to UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.

444. Selected Topics in Management. (1) Seminar, two hours. Limited to UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.


410. Applied Finance Project. (4) Fieldwork, four hours. Limited to Master of Financial Engineering program students. Applied quantitative finance project that explores one quantitative finance problem that might be met in practice and involves development or use of some tools developed in MFE program. S/U or letter grading.

411. Fieldwork/Research on Financial Engineering. (4) Fieldwork, to be arranged. Preparation: completion of one term of MFE program. Limited to Master of Financial Engineering program students. Supervised, nonpaid, or paid practical research experience or fieldwork in organization 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. Business Analytics Supervised Project. (4) Fieldwork, three hours. Limited to Master of Science in Business Analytics program students. In-depth examination of student’s project that helps prepare students for career in business analytics. May be repeated for credit. S/U or letter grading.

413. Special Topics in Financial Engineering. (2 to 4) Lecture, two to four 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.
431. 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.

431. Internet Customer Analytics. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Exploration of opportunities for improvement in design and management of health care systems and operations, using tools such as regression analysis, linear optimization, queuing theory, decision analysis, Monte Carlo simulation, and machine learning techniques. Identification of key operational challenges facing health care managers and techniques for improving efficiency in variety of health care settings, discussion of applications of data analytics and operations management in health care industry, and practical experience with developing quantitative tools and insights. S/U or letter grading.

433. Entertainment Analytics. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Introduction to business analytics in entertainment industry. Focus on movies studios, television, entertainment. Entertainment industry executives have changed the way they approach decision making as result of big data and analytics in last two years, including making greater use of specialized analytics tools to provide detailed insights into consumer behavior. S/U or letter grading.

432. Health Care Analytics. (2) Lecture, three hours (five weeks). Introduction to business analytics in the health care industry. Focus on hospitals, health care providers, and institutions. Discussion of applications of data analytics and operations management in health care industry, and practical experience with developing quantitative tools and insights. S/U or letter grading.


435. Data Visualization. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Presents solid basis for working with data and for exploring discipline. Collection, visualization, analysis of big data through lectures, case studies, and intensive class project. Tableau and Python are used. Addresses both theoretical underpinning of domain and intensive applied computing component. 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. Covers principal methods of time series data analysis and forecasting that are applicable in many functional areas of business. Includes time series and multiple regression, seasonal decomposition, AutoRegressive Integrated Moving Average (ARIMA), vector autoregressive, dynamic linear, error correction models. Use of R, R Studio and other packages for regression and time series econometrics analysis and forecasting models. 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 behavior. S/U or letter grading.

201A. Probability, Statistics, and Computational Methods for Econometrics. (4) Lecture, three hours. Introduction to econometrics. This class is for applied researchers in business fields. Probability theory, modes of convergence, hypothesis testing, Bayesian inference, R programming, linear algebra, numerical methods, computational methods, numerical integration. S/U or letter grading.

201B. Theory and Application of Regression Analysis. (4) Lecture, three hours. Recommended requisite: course 201A. Introduction to general regression analysis. Linear model, maximum likelihood and asymptotic tests, endogeneity, instrumental variables, differences-in-differences, regression-discontinuity design, property score matching, limited dependent variable models, introduction to panel data. S/U or letter grading.


202A-202B-202C. Accounting Workshops. (1–1–2) Seminar, two hours. Required of all PhD 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 marketing faculty and PhD students. Active participation and intellectual interchange encouraged through discussion of papers during colloquium. May be repeated for credit. S/U or letter grading.

203A-203B-203C. Workshops: Marketing. (1–1–2) Lecture, three hours. Required of PhD students. Requisite 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 marketing faculty and PhD students. Active participation and intellectual interchange encouraged through discussion of papers during colloquium. May be repeated for credit. S/U or letter grading.

207A-207B-207C. Workshops: Management. (1–1–2) Lecture, three hours. Required of PhD students. Requisite 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 marketing faculty and PhD students. Active participation and intellectual interchange encouraged through discussion of papers during colloquium. May be repeated for credit. S/U or letter grading.

208A-208B-208C. Global Economics and Management Workshops. (1–1–2) Seminar, two 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 marketing faculty and PhD students. Active participation and intellectual interchange encouraged through discussion of papers during colloquium. May be repeated for credit. S/U or letter grading.

209A-209B-209C. Management Strategy and Policy Workshops. (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 marketing faculty and PhD students. Active participation and intellectual interchange encouraged through discussion of papers during colloquium. May be repeated for credit. S/U or letter grading.

210A. Probability, Statistics, and Computational Methods for Econometrics. (4) Lecture, three hours. Preparation: linear programming. Emphasis on finite dimensional models and their applications, (2) standard methods of time series analysis models; survey of multivariate statistical procedures (e.g., multiple discriminate analysis, multivariable regression-discontinuity design, propensity score matching, limited dependent variable models, introduction to panel data. S/U or letter grading.

210C. Time-Series Analysis. (4) Lecture, three hours. Preparation: linear programming. Emphasis on finite dimensional models and their applications, (2) standard methods of time series analysis models; survey of multivariate statistical procedures (e.g., multiple discriminate analysis, multivariable regression-discontinuity design, propensity score matching, limited dependent variable models, introduction to panel data. S/U or letter grading.
237. Introduction to Financial Economics. (4) Lecture, three hours. Provides foundational material for analytical studies of financial markets. 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 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 models and their applications. Aggregation and disaggregation, scheduling, inventory management, and detailed operations scheduling and control. S/U or letter grading.


242. Special Topics in Decisions, Operations, and Technology Management. (4) Lecture, three hours. Designed for MBA and PhD students. Studies of advanced subjects of current interest in decisions, operations, and technology management. Emphasis on recent developments and application of specialized knowledge. Topics vary each term and have included strategy for information intensive industries, empirical research in operations management, analytical methods of operation research, introduction to management in information economy, and models for medical management. S/U or letter grading.

243. Foundations of Organizational Behavior. (4) (Same as Psychology M222E) 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 interpersonal processes within organizations. Exploration of how individual behaviors, cognitions, and perceptions are affected by organizational context, content, 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/work systems. S/U or letter grading.

245. Research in Organizations. (4) Seminar, three hours. Designed for graduate students. Doctoral-level survey of major topics in 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 networks. 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 topic of theory development and testing. Prepares 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, promotion 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 marketing. 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.

251. 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 innovation and invention; 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.

256. 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.

MATERIALS SCIENCE AND ENGINEERING

Henry Samueli School of Engineering and Applied Science
3111 Engineering V
Box 951595
Los Angeles, CA 90095-1595

Materials Science and Engineering 310-825-5534

Bruce S. Dunn, PhD, Chair
Ya Huang, PhD, Vice Chair
Ya-Hong Xie, PhD, Vice Chair

Faculty Roster

Professors
Gregory P. Carman, PhD (Ben Rich-Lockheed Martin Professor of Advanced Aerospace Technologies)
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)
Nasr M. Ghoniem, PhD
Mark S. Goosky, PhD
Vijay Gupta, PhD
Yu Huang, PhD
Subramanian S. Iyer, PhD (Charles P. Reames Endowed Professor of Electrical Engineering)
Joanna Kakoulli, DPhil
Richard B. Kaner, PhD
Suneel Kodambaka, PhD
Xiaochun Li, PhD (Raytheon Company Professor of Mechanical Engineering)
Jaime Marian, PhD
Ali Mosleh, PhD (Evelyn Knight Professor of Engineering)
Olbing Pei, PhD
Gaurav Sant, PhD
Dwight C. Streit, PhD
Sarah H. Tolbert, PhD
Kang L. Wang, PhD (Raytheon Company Professor of Electrical Engineering)
Yinmin (Morris) Wang, PhD
Paul S. Weiss, PhD (Presidential Professor of Chemistry)
Benjamin M. Wu, DDS, PhD
Ya-Hong Xie, PhD
Jenn-Ming Yang, PhD
Yang Yang, PhD (Carol and Lawrence E. Tannas, Jr., Endowed Professor of Engineering)

Professors Emeriti
Alan J. Ardell, PhD
Kanjii Ono, PhD
King-Ning Tu, 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

Materials Engineering 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: 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 182B, 182C; 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 one major field elective course (4 units) from Electrical and Computer Engineering 110, 131A, Materials Science and Engineering 105, C111, C112, 143A, or 162.

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.

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Graduate Major
Materials Science and Engineering MS, PhD
The graduate program allows for specialization in one of the following fields: ceramics and ceramic processing, electronic and optical materials, or structural materials.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Materials Science and Engineering
Lower-Division Courses
10. Freshman Seminar: New Materials. (1) Seminar; one hour; outside study, two hours. Preparation: high school chemistry and physics. Not open to students
with credit for course 104. Introduction to basic concepts of materials science and new materials vital to advanced technology. Microstructural analysis and various material properties discussed in conjunction with such applications as biomedical sensors, pollution control, and materials science. Letter grading.

13L. Cultural (Materials) Science Investigations in Art and Archaeology. (8) Laboratory, four hours; discussion, two hours; site visits, four hours; outside study, five hours. Focus on portable X-ray fluorescence spectroscopy (XRF), infrared spectroscopy, and non-destructive analysis of visual art, historic artifacts, and materials. Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 104. Modern methods of materials characterization for the study of ancient materials, with emphasis on fundamental principles of materials science and their application in the study of art objects. 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 for the study of ancient materials, with emphasis on fundamental principles of materials science and their application in the study of art objects. Letter grading.

110L. Introduction to Materials Characterization A 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.

C111. Introduction to Materials Characterization B (Electron Microscopy). (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Characterization of microstructure and microchemistry of materials; transmission electron microscopy; reciprocal space techniques; electron diffraction; electron microprobe analysis; direct observation of defects in crystals, replicas; scanning electron microscopy; emissive and reflective modes; chemical analysis; electron optics of both instruments. Concurrently scheduled with course C211. Letter grading.

C111L. 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. Determination of morphology, microstructure, and crystallinity of samples. Letter grading.

C112. Cultural Materials Science II: Characterization Methods in Conservation of Materials. (4) Lecture, four hours. Preparation: general chemistry, inorganic and organic chemistry, materials science. Prerequisites: courses 104, 110 (or Chemistry 113A); enrollment in the Graduate Division. Methodological approaches to the characterization of ancient materials, particularly with feature sizes below few hundred nanometers explained using basic concepts from physics and chemistry. Chemical, optical, and electronic properties, electron transport, structural stability, self-assembled, templated assembly and applications of various materials such as quantum dots, nanotubes, and thin film biaxial modulus and CTE. Letter grading.

120. Physics of Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: 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 characteristics of electrical conductivity, optical absorption, magnetic behavior, dielectrical 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 electronic materials, compound semiconductors, Electrical and optical properties, defect chemistry, and doping. Electronic materials analysis and characterization, including electrical, optical, and ion-beam techniques, superlattices, 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 corequisite: course 121. Experiments conducted on materials characterization, including measurements of contact resistance, dielectric constant, and thin film biaxial moduli and CTE. Letter grading.

122. Principles of Electronic Materials Processing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 104. Description of basic semiconductor materials for device processing, preparation and characterization of semiconductor alloys, compounds, and films. Discussion of principles of CVD, MOCVD, LPE, and MBE; metals and dielectrics. Letter grading.

130. Phase Relations in Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 130 or Chemistry 110A. Diffusion in metals and ionic 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-resistance alloys, recrystallization, and grain growth. Letter grading.

131L. Diffusion and Diffusion-Controlled Reactions Laboratory. (2) Laboratory, two hours; outside study, two hours. Enforced requisite: course 131. Design of heat treatment cycles and study of diffusion phenomena 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 Selection and Engineering Design A (FTIR, NMR, and SEM Laboratory). (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 131. Physical metallurgy of steels, lightweight alloys (Al and Ti), and superalloys. Strengthening mechanisms and microstructural control methods for strength and toughness improvement. Grain boundary segregation. Letter grading.

140B. Materials Selection and Engineering Design B. (3) Formerly numbered 140.) Lecture, two hours; laboratory, two hours; outside study, five hours. Letter grading.

140B. Materials Selection and Engineering Design B. (3) Formerly numbered 140.) Lecture, two hours; laboratory, two hours; outside study, five hours. Enforced requisite: courses 132, 135, 160. Explicit guidance among myriad materials available for design in engineering. Properties and applications of steels, nonferrous alloys, polymeric, ceramic, and composite materials, coatings. Materials selection, treatment, and serviceability emphasized as part of successful design. Letter grading.

140B. Materials Selection and Engineering Design B. (3) Formerly numbered 140.) Lecture, two hours; laboratory, two hours; outside study, five hours. Enforced requisite: courses 132, 135, 160. Explicit guidance among myriad materials available for design in engineering. Properties and applications of steels, nonferrous alloys, polymeric, ceramic, and composite materials, coatings. Materials selection, treatment, and serviceability emphasized as part of successful design. Letter grading.

141L. Computer Methods and Instrumentation in Materials Science. (2) Laboratory, four hours. Preparation: knowledge of BASIC or C or assembly language. Limited to junior/senior Materials Science and Engineering majors. Interfacing and control techniques, real-time data acquisition and processing, computer-aided testing. Letter grading.

143A. Mechanical Behavior of Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 104, Mechanical and Aerospace Engineering 101. Plastic flow of metals under simple and combined loading, strain rate and temperature effects, dislocations, fracture, microstructural effects, mechanical and thermal treatment of steel for engineering applications. Letter grading.

143L. Mechanical Behavior Laboratory. (2) Laboratory, four hours. Preparation: knowledge of 90L, 143A (may be taken concurrently). Methods of characterizing mechanical behavior of various materials; elastic and plastic deformation, fracture, fatigue, and creep. Letter grading.

150. Introduction to Polymers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Polymerization mechanisms, molecular weight
Materials Science and Engineering / 605

d and distribution, chemical structure and bonding, structure crystallinity, and morphology and their effects on physical properties. Glassy polymers, springy polymers, elastomers, adhesives. Fiber forming polymers, polymer processing technology, plasticization. Letter grading.


160. Introduction to Ceramics and Glasses. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 104, 130. Introduction to ceramics and glasses being used as important materials of engineering, processing techniques, and unique properties. Examples of design and control of properties for certain specific applications in engineering. Letter grading.

161. Processing of Ceramics and Glasses. (4) Lecture, four hours; discussion, one hour; Requisite: course 160. Study of processes used in fabrication of ceramics and glasses for structural applications, optics, and corrosion resistant applications. Include modern techniques of powder synthesis, greenware forming, sintering, glass melting and fabrication. Determination of macrostructures and material systems. Letter grading.


162. Electronic Ceramics. (4) Lecture, four hours; outside study, eight hours. Requisites: course 104, Physics 1C. Utilization of ceramics in microelectronics; thick film and thin film resistors, capacitors, and substrates; design and processing of electronic ceramics and packaging; magnetic ceramics; ferroelectric ceramics and electro-optic devices; optical waveguide design. Letter grading.

CM163. Electrochemical Processes. (4) (Same as Chemical Engineering CM114.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 130 (for Mechanical and Aerospace Engineering students) or 220B. Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes. Primary emphasis on fundamental approach to analyze electrochemical systems. Specific topics include electrochemical reactions on metal and semicon ductor surfaces, electrodeposition, electroless deposition, electroosmosis, 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. (4) 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 creating and delivering effective oral presentations. Skill set prepares students for different types of academic and professional presentations for wide range of audiences. Learning environment is highly supportive and interactive with instructor's creative, hands-on involvement and greatly expand effectiveness of their communication and presentation skills. Letter 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 selection of journal publications. Instruction leads students 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.

CMI00. 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, suitability to task, surface chemistry, processing and treatment methods, and biocompatibility. Conceivedly scheduled with course CM280. 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 interested in doing research. Presentation of research methods and current literature in field or of research of faculty members or students. May be repeated for credit. Letter grading.

199. Directed Study in Materials Science and 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. Occasional field trips may be arranged. 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. Principles of Materials Science I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 120. Lattice dynamics and thermal properties of solids, classical and quantized electron theory, electrons in a periodic potential, transport in semiconductors, dielectric and magnetic properties of solids. Letter grading.


211. 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 projection, direct observation 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. 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 theoretical knowledge on imaging and photonics technology and practical skills on conservation photo-documentation, analytical (ref lens) photography, and advanced new imaging technologies. Letter grading.

213L. Cultural Materials Science Laboratory: Technical Study. (4) (Formerly numbered M213L.) Laboratory, four hours. Requisites: course M213 (or 216) and one course from Conservation 280 through 284. Corequisite: course C212. Research-based laboratory through object-based problem-solving approach in conservation materials science. Experimental techniques, characterization, and analysis of archaeological and ethnographic materials (using materials science principles and reverse engineering processes) to determine technological features, defects, and produce alteration. Hands-on experience with noninvasive imaging and spectroscopic techniques, sampling and sample preparation methods, analysis of microsamples. Letter grading.

214. Structure, Property, and Deterioration of Materials: Rock Art, Wall Paintings, Mosaics. (2) (Formerly numbered M214.) Lecture, three hours. Recommended preparation: basic knowledge of general chemistry and materials science and 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, recording tools, and scientific imaging to determine condition (defects) and technological features of deterioration (physical, chemical, and biochemical). Letter grading.

M215. Conservation Laboratory: Rock Art, Wall Paintings, and Mosaics. (4) (Same as Conservation M250.) Laboratory, four hours. Requisites: courses M213 or M214 or C112 or Conservation 210L. Recommended: course M213. Research-based laboratory on conservation of rock art, wall paintings (archaeological and modern complexes on cement, masonry, and decorative architectural surfaces). Experimental techniques and analysis of materials (using materials science and reverse engineering processes) for characterization of technology, constituent materials and alteration processes of conservation treatment proposals, testing of conservation products, and methods and conservation treatment. Letter grading.

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 of novel technologies based on risk assessment, design, and optimization processes and nanostructured materials. Letter grading.

221. Science of Electronic Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 120, 130, 131. Thermodynamics and kinetics that affect semiconductor growth and device processing. Particular emphasis on fundamentals of growth (bulk and epitaxial), heteroepitaxy, implantation, oxidation. 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, structure, and properties of thin films used in microelectronics for data and information 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 deposition film formation processes on solid-state materials. Emphasis on scanning probe microscopy, Auger electron spectroscopy, X-ray photoelectron spectroscopy, X-ray ultraviolet photoelectron spectroscopy, secondary ion mass spectrometry, and Rutherford backscattering spectrometry. Applications in microelectronics, optoelectronics, metallurgy, polymers, biological and bio-compatible materials, and catalysis. Letter grading.


226. Si-CMOS Technology: Selected Topics in Materials Science. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended preparation: Electrical Engineering 221B. Requisites: courses 130, 131, 200, 221, 222. Selective topics in materials science from modern Si-CMOS technology, including technological challenges in high-k/metal gate stacks, strained Si FETs, SOI and three-dimension (3D) FETs. Surveying engineering including improvement of enhanced diffusion, nonvolatile memory, and metalization for ohmic contacts. Letter grading.

243A. Fracture of Structural Materials. (4) Lecture, four hours, laboratory, two hours; outside study, four hours. Requisites: course 143A. Engineering and scientific aspects of crack nucleation, slow crack growth, and unstable fracture. Fracture mechanics, dislocation models, fatigue, fracture in reactive environments, alloy development, fracture-safe design. Letter grading.

243C. Dislocations and Strengthening Mechanisms in Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 143A. Elastic and plastic behavior of crystals, geometry, mechanics, and interaction of dislocations, mechanisms of yielding, work hardening, and other strengthening. Letter grading.

244A. Mechanical Properties of Nonmetallic Crystalline Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 160. Materials and environmental factors affecting mechanical properties of nonmetallic crystalline solid materials. Structure, atomic-scale defects, microstructural features, residual stresses, temperature, stress state, strain rate, size and surface conditions. Letter grading.

246B. Structure and Properties of Glass. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 160. Structure of amorphous solids and glasses, Conditions of glass formation and theories of glass structure. Mechanical, electrical, and optical properties of glass and relationship to structure. Letter grading.

246D. Electronic and Optical Properties of Ceramics. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 160. Principles governing electronic properties of ceramic single crystals and glasses and effects of processing and microstructure on these properties. Electronic conduction, ferroelectricity, and photochromic properties. 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; outside study, four hours. Literature studies of up-to-date subjects in novel materials 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 models of cell operation, 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 cell, dye sensitized solar cell, and perovskite solar cell, are introduced to increase student knowledge. Tour of research laboratory included. Letter grading.

250B. Advanced Composite Materials. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Preparation: Physics 5B. Topics in Materials Science and Engineering. Requisites: course 151. Fabrication methods, structure and properties of advanced composite materials. Fibers; resin; metal matrix composites; ceramic matrix composites; Physical, mechanical, and nondestructive characterization techniques. Letter grading.


252. Organic Polymer Electronic Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: knowledge of introductory organic chemistry and polymer science. Introduction to organic electronic materials with emphasis on materials chemistry and processing. Topics include conjugated polymers; heavily doped, highly conducting polymers; applications as processable metals and in various electronic devices and photovoltaic cells. Synthesis of semiconductor polymers for organic light-emitting diodes, solar cells, thin-film transistors. Introduction to emerging field of organic electronics. Letter grading.

253. Biologically Inspired Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Broad overview of most recent advances in bioinspired materials and biomaterials, covering natural materials, biomimetics, and bioinspired material systems, with emphasis on synthesis, processing, hierarchical design, and assembly from nano- to macro-scale, properties and characterizations, and real-life applications. Letter grading.

254. Functional Properties of Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Topics include fundamental concepts of materials science and engineering, the ability of materials to perform useful functions. Focus on the design and performance of materials that are used in everyday applications. Letter grading.

255. Engineering Materials in Medicine and Dentistry. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: knowledge of introductory physics and chemistry. Introduction to engineering materials used in medicine and dentistry, including metallic, polymeric, ceramic, and composite materials. Topics include biocompatibility, mechanical and physical properties, and applications in dental and medical devices. Letter grading.

256. Risk Analysis for Engineers and Scientists. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Topics include definition and fundamental concepts of risk, societal context of risk assessment and risk management, perception of risk, risk characteristics, risk criteria, risk assessment and risk management, decision-making and control of risk, risk communication, and risk perception. Letter grading.

CM253. Electrochemical Processes. (4) Same as Chemical Engineering CM254. Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 130 (or Mechanical and Aerospace Engineering 105A), Chemical Engineering 102B. Fundamentals of electrochemistry and engineering applications to industrial electrolytic processes. Primary emphasis on fundamental approach to analyze electrochemical processes. Specific topics include electrochemical reactions on metal and semiconducting substrates, oxidation and reduction of intermediates, electrocatalysis, electroanalysis, fuels and electrolysis of aqueous and nonaqueous solutions. May be concurrently scheduled with course CM163. Letter grading.

270. Computer Simulations of Materials. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Introduction to modern methods of computational modeling in materials science. Topics include basic statistical mechanics, first principles and Monte Carlo methods, with emphasis on understanding basic physical ideas and learning to design, run, and analyze computer simulations of materials. Use of examples from cutting edge industry to illustrate these methods can be used to study interesting phenomena in materials science. Hands-on computer experiments. Letter grading.

271. Electronic Structure of Materials. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Preparation: basic knowledge of quantum mechanics. Recommended requisite: course 200. Introduction to modern first-principles electronic structure calculations for various classes of modern materials. Topics include electronic and interatomic binding in molecules, crystals, and liquids, with emphasis on practical methods for solving Schrödinger equation and using it to calculate electronic properties such as electronic band structure, electronic density of states, and electronic structure gaps and band structures, 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 basic principles that distinguish nanostructures (with feature size below 100 nm) from more common macroscopic materials. Explanation of new phenomena that emerge only in very small systems, using simple concepts from quantum mechanics and thermodynamics. Topics include structure and properties of nanometer scale objects, coherent superposition states, electron dots, wires, nanotubes, and multilayers, self-assembly on surfaces and in liquid solutions, mechanical properties of nanostructured metamaterials, molecular electronics, spin-based nanoelectronics, and quantum computers. Discussion of current and future directions of this rapidly growing field using examples from modern scientific literature. Letter grading.

CM260. Introduction to Biomaterials. (4) Same as Bioengineering CM261. 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, suitability to task, surface chemistry, processing and treatment methods, and biocompatibility. Concurrently scheduled with course CM180. Letter grading.

282. Exploration of Advanced Topics in Materials Science and Engineering. (2) Lecture, one hour; discussion, one hour; outside study, four hours. Researchers from leading research institutions around world deliver lectures on advanced research topics in materials science and engineering. Student groups present summary previews of topics prior to lecture. Class discussions follow each presentation. May be repeated for credit. S/U grading.

296. Seminar: Advanced Topics in Materials Science and Engineering. (2) Seminar, two hours; outside study, four hours. Advanced study and analysis of current topics in materials science and engineering. Discussion of current research and literature in research specialty of faculty members teaching course. May be repeated for credit. S/U grading.

M297B. Material Processing in Manufacturing. (4) (Same as Mechanical and Aerospace Engineering M297B.) Lecture, four hours; outside study, eight hours. Enforced requisite: Mechanical and Aerospace Engineering 183A. Thermodynamics, principles of material processing: phase equilibria and transitions, transport mechanisms of heat and mass, nucleation and growth of microstructure. Applications in casting/solidification, welding, consolidation, chemical vapor deposition, infiltration, composites. Letter grading.

M297C. Composites Manufacturing. (4) (Same as Mechanical and Aerospace Engineering M297C.) Lecture, four hours; outside study, eight hours. Required: course 151. Mechanical and Aerospace Engineering 166C. Matrix materials, fibers, fiber preforms, elements of processing, autoclave/compression molding, filament winding, pultrusion, resin transfer molding, automation, material removal and assembly, metal and ceramic matrix composites, quality assurance. Letter grading.

298. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limited to graduate materials science and 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.

599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

### Mathematics

#### College of Letters and Science

6363 Mathematical Sciences

Box 951555

Los Angeles, CA 90095-1555

Mathematics

310-825-4701

Mario Bonk, PhD, Chair

Michael A. Hill, PhD, Undergraduate Vice Chair

Wilfrid D. Gangbo, PhD, Graduate Vice Chair

Burt Totaro, PhD, Administrative Vice Chair

Christopher R. Anderson, PhD, Director, Program in Computing

Andrea L. Bertozzi, PhD, Director, Applied Mathematics

#### Faculty Roster

**Professors**

- Christopher R. Anderson, PhD
- Matthias J. Aschenbrenner, PhD
- Tim Austin, PhD
- Paul Balmer, PhD
- Andrea L. Bertozzi, PhD (Betsy Wood Knapp Professor of Innovation and Creativity)

**Marek Biskup, PhD**

**Don M. Blasius, PhD**

**Mario Bonk, PhD**

**Lincoln Chayes, PhD**

**Tom Chou, PhD**

**Lara Dolecek, PhD**

**William D. Duke, PhD**

**Richard S. Elman, PhD**

**Wilfrid D. Gangbo, PhD**

**David A. Gieseker, PhD**

**Robert E. Greene, PhD**

**Michael A. Hill, PhD**

**Ko Honda, PhD**

**Chandrashekar Khare, PhD**

**Mikhail Khitrnik, PhD**

**Rowan B. Killip, PhD**

**Iwona C. Kim, PhD**

**Ker-Chau Li, PhD**

**Kefeng Liu, PhD**

**Alexander S. Merkurjev, PhD**

**Deanna M. Needell, PhD** (Dunn Family Endowed Professor of Data Theory)

**Itay Neeman, PhD**

**William I. Newman, PhD**

**Stanley J. Osher, PhD**

**Rafael Ostrovsky, PhD**

**Igor Pak, PhD**

**Peter Petersen, PhD**

**Sorin T. Popa, PhD** (Yuki, Kyoko and Masamichi Takesaki Endowed Professor of Operator Algebra)

**Mason A. Porter, PhD**

**Marcus L. Roper, PhD**

**Raphael A. Rouquier, PhD**

**Romyar T. Sharifi, PhD**

**Dmitriy Y. Shlyakhtenko, PhD**

**Terence C. Tao, PhD** (James and Collins Professor in College of Letters and Science)

**Joseph M. Teran, PhD**

**Burt Totaro, PhD**

**Lieven Vandenberghe, PhD**

**Luminita A. Vese, PhD**

**Monica Vlasic, PhD**

**Wotao Yin, PhD**

**William R. Zame, PhD**

**Professors Emeriti**

- Kirby A. Baker, PhD
- Robert F. Brown, PhD
- Russell E. Caflisch, PhD
- Lennart Carleson, PhD
- Tony F. Chan, PhD
- Shiu-Yuen Cheng, PhD
- Robert D. Edwards, PhD
- Gregory I. Eskin, PhD
- Hector O. Fattorini, PhD
- Thomas S. Ferguson, PhD
- Theodore W. Gamelin, PhD
- John B. Garnett, PhD
- Mark L. Green, PhD
- Nathaniel Grossman, PhD
- Alfred W. Hales, PhD
- Haruoz Hida, PhD
- Robert I. Jennrich, PhD
- Alan J. Laub, PhD
- Donald A. Martin, PhD
- Yiannis N. Moschovakis, PhD
- James V. Rafton, Jr., PhD
- Paul H. Roberts, PhD, DSc
- Bruce L. Rothschild, PhD
- Murray M. Schacher, PhD
- Roberto H. Schonmann, PhD
- Masamichi Takesaki, PhD
- James H. White, PhD
- N. Donald Ylvisaker, PhD

**Associate Professors**

- Artem Chemikov, PhD
- Alyson K. Fletcher, PhD
- Gang Liu, PhD
- Andrew S. Marks, PhD
- Georg Menz, PhD
- Sucharit Sarkar, PhD
- Jun Yin, PhD

**Assistant Professors**

- Pavel Galashin, PhD
- Chenzhanfu Jiang, PhD
- Guido F. Montufar, PhD
- Hong Wang, PhD

**Lecturer PSOE**

- William J. Conley, PhD

**Adjunct Professor**

- Christian Ratsch, PhD

**Adjunct Assistant Professor**

- Mary P. Greene, MS

---

**Address:**

Professor, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.
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 participates in 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 credit and Mathematics 31A, 31B equivalency; those with a score of 4 receive 4 units of credit and Mathematics 31A equivalency. They may petition for 31A, 31B equivalency, or they may take courses 31A or 31AL, 31B at UCLA, although they must still satisfy the course requisites (Mathematics Diagnostic Test). Students receiving a score of 3 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; (5) former course 174A, 174E.

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.

Former Mathematics 174A and course 174E are 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 requisite 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 131BH).

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 a lower-division honors sequence in calculus, and upper-division honors sequences in algebra and analysis. The sequences 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 requirements.

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++

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 premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor 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.

Premajor

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics premajor at the time they apply for admission are automatically admitted to the premajor.
Preparation for the Major


Policies
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.

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, and 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.

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.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

Policies
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. 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.

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.

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.

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++

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 premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor 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.

Premajor
Students entering UCLA directly from high school or first-term transfer students who want to declare the Applied Mathematics premajor at the time they apply for admission are automatically admitted to the premajor.

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.

Policies
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.

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, and 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, 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, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.
regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

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).

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

Policies

Each course must be taken for a letter grade.

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. 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.

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.

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.

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

Premajor

Students entering UCLA directly from high school or first-term transfer students who want to declare the Data Theory premajor at the time they apply for admission are automatically admitted to the premajor. Students must visit the student services office of either the Mathematics Department or Statistics Department in order to petition to enter the major. All students are identified as Data Theory premajors until they satisfy the following minimum requirements for the major.

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.

Policies

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.

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 premajor. 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 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 first year at UCLA.

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 Department in order to petition to enter the major.

The Major

Required: Mathematics 118, 131A, 156, Statistics 101A, 102A, 102B, 101C, 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

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.

Financial Actuarial Mathematics BS

The Financial Actuarial Mathematics major concerns the applications of mathematics to finance, the actuarial field, and related areas.

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 at the level needed to pass the examination 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++

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 are identified as Financial Actuarial Mathematics premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced 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 premajor 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.

Premajor

Students entering UCLA directly from high school or first-term transfer students who want to declare the Financial Actuarial Mathematics premajor at the time they apply for admission are automatically admitted to the premajor.

Preparation for the Major

Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, and one course selected from Mathematics 11N, 42, 61, 70; Economics 1, 2, 11, Management 1A, Program in Computing 10A, 10B or 16A.

Policies

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.

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.

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 principles.

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.

The Major

Required: Ten mathematics/statistics courses, including Mathematics 115A, 131A, 170E, 170S, 174E (or Economics 141 or Statistics C183), 177, 178A, 178B, 178C, 179; and two courses from Economics 101 through 199B, Statistics 100C.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

Policies

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.

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.

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
- 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++

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 C++ programming course, one microeconomic theory course, one macroeconomics course, and two terms of accounting principles.

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.
• Familiarity with linear algebra, techniques of proof, and foundations of real analysis
• Ability to perform basic computer programming, especially in C++

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 premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor 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.

Premajor
Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics of Computation premajors at the time they apply for admission are automatically admitted to the premajor.

Preparation for the Major
Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, 61, Physics 1A, 1B, Program in Computing 10A, 10B, 10C, and one course from Chemistry and Biochemistry 20A, 20B, Physics 1C.

Policies
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.

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.

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.

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).

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

Policies
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. 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.

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

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 premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor 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.

Premajor
Students entering UCLA directly from high school or first-term transfer students who want to declare 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 premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor 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.

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.

Policies
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.

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.

Policies
Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 131A or 131AL, 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. Each course must be taken for a letter grade.

Policies
Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A, and three courses from History 2B, 3A through 3D).

Policies
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. Each course must be taken for a letter grade.

Policies
Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 115A 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. Each course must be taken for a letter grade.

Policies
Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 115A 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. Each course must be taken for a letter grade.

Policies
Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 115A 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. Each course must be taken for a letter grade.

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
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 C119A, 133, C135, 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.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

Policies
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.

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.

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

**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 premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor 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.

**Premajor**

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics for Teaching premajor at the time they apply for admission are automatically admitted to the premajor.

**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 1B through 97.

**Policies**

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.

**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**

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.

**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).

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

**Policies**

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.

**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.

**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 that 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.

Mathematics 115A is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Mathematics MAT

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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
1. Precalculus. (4) Lecture, three hours; discussion, one hour. Preparation: three years of high school mathematics. Required: 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; decision-making in biology, derivative rules and tools. P/NP or letter grading.

2B. Calculus for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Required: course 3B with grade of C– or better. Not open for credit to students with credit for course 31B. Application of differentiation, integration, differential equations, linear models in biology, phase lines and classifying equilibrium values, bifurcations. P/NP or letter grading.

3C. Ordinary Differential Equations with Linear Algebra for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Required: 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. Required: courses 31A, 31B. Introductory number theory course for freshmen. B or 32A with grade of C– or better. Required: successful completion of Mathematics Diagnostic Test or course 1 with grade of C– or better. Multivariable calculus and applications; introduction to integration. P/NP or letter grading.

11L. Differential and Integral Calculus Laboratory. (5) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: at least three and one half years of high school mathematics (including some coordinate geometry and trigonometry). Required: successful completion of Mathematics Diagnostic Test or course 1 with grade of C– or better. Not open for credit to students with credit for course 3B. Transcendental functions; methods and applications of integration; sequences and series. P/NP or letter grading.

31B. Integration and Infinite Series. (4) Lecture, three hours; discussion, one hour. Required: course 31A with grade of C– or better. Not open for credit to students with credit for course 3B. Transcendental functions; methods and applications of integration; sequences and series. P/NP or letter grading.

31BH. Integration and Infinite Series (Honors). (4) Lecture, three hours; discussion, one hour. Required: course 31A with grade of C– or better. Not open for credit to students with credit for course 3B. Transcendental functions; methods and applications of integration; sequences and series. P/NP or letter grading.

31E. Calculus for Economics Students. (4) Lecture, three hours; discussion, one hour. Required: course 31A with grade of C– or better. Not open for credit to students with credit for course 3B, 3C, or 31B. Calculus for economics applications. Partial differentiation, implicit functions, exponential and logarithmic functions, extrema, optimization, constrained optimization, P/NP or letter grading.

32A. Calculus of Several Variables. (4) Lecture, three hours; discussion, one hour. Required: 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. Required: course 32A: course 31A with grade of B or better; for 32B: 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. Required: courses 31B and 32A, with grades of C– or better. Introduction to integral 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 M32J. Lecture, three hours; discussion, one hour. Required: courses 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. P/NP or letter grading.

33A. Linear Algebra and Applications. (4) Lecture, three hours; discussion, one hour. Required: courses 31B or 32A. Principles of linear algebra: systems of linear equations, matrix algebra, linear independence, subspaces, bases and dimension, orthogonality, least-squares methods, determinants, eigenvectors and eigenvalues. P/NP or letter grading.

33AH. Linear Algebra and Applications (Honors). (4) Lecture, three hours; discussion, one hour. Required: courses 31A or 32A. Principles of linear algebra: systems of linear equations, matrix algebra, linear independence, subspaces, bases and dimension, orthogonality, least-squares methods, determinants, eigenvectors and eigenvalues. P/NP or letter grading.

42. Introduction to Data-Driven Mathematical Modeling: Life, Universe, and Everything. (4) Lecture, three hours; discussion, one hour. Required: courses 31A, 31B, 32A, 32B, 33A, one statistics course from Statistics 10, 12, 13, one programming course from Computer Science 31, Program in Computing 10A, Statistics 20. Introduction to data-driven mathematical modeling methodologies and associated data analysis for students who still need to review precalculus material (laboratory) while starting calculus. Calculus and applications; introduction to integration. P/NP or letter grading.

61. Introduction to Discrete Structures. (4) Lecture, three hours; discussion, one hour. Required: courses 31A, 31B. Not open to credit to students with credit for course 180 or 184. Discrete structures commonly used in computer science and mathematics, including sets and relations, permutations and combinations, graphs and trees, induction. P/NP or letter grading.

70. Introduction to Probability. (4) Lecture, three hours; discussion, one hour. Required: courses 31A, 31B. Introduction to probability through applications and examples. Topics include laws of large numbers, statistics, chance trees, conditional probability, Bayes’ rule, continuous and discrete random variables, joint 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 73SL. Seminar, two hours; fieldwork, two hours. Introduction to K-12 mathematics activity in U.S. Cultivation of interest in teaching through ex-
ploration of sequences in mathematics: 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 the help of mathematician’s habits of mind outlined in CCSS-M (including proof and mathematical modeling), and effective strategies for teaching mathematics to diverse student groups. Fieldwork in local mathematics classroom arranged by Cal Teach program. P/NP grading.

74XP, Mathematics and Pedagogy for Teaching Elementary Mathematics. (3) Formerly numbered 74SL. Students design, teach, and develop professional development of elementary 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.

89H, Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Design 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.

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. Introduction 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. Enforced requisites: courses 32A, 32B. Not open for credit to students with credit for course 131A or 132. Exploration 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 Science (PEERS) students. Development of intuition and problem-solving skills in collaborative learning 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 mathematics for physics 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 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. Level-division students under guidance of faculty mentor. Students must be in good academic standing and must 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

General and Teacher Training

100. Problem Solving. (4) Lecture, three hours. Requisite: course 31B with grade of C– or better. Problem-solving techniques and mathematical topics useful as preparation for Putnam Examination and similar competitions. Continued fractions, inequalities, modular arithmetic, closed form evaluation of sums and products, problems in geometry, rational functions and polynomials, other nonroutine problems. Participants expected to take Putnam Examination. P/NP grading.

101. Advanced Problem Solving. (4) Lecture, three hours; discussion, one hour. Requisite: significant experience with mathematical competitions. Enrollment based on one selection test or past Putnam results. Advanced problem solving techniques and mathematical topics useful as preparation for Putnam competition. Problems in abstract algebra, linear algebra, number theory, combinatorics, probability, real and complex analysis, differential equations, Fourier analysis. Regular practice tests given, similar difficulty to Putnam competition. May be repeated for maximum of 12 units. P/NP or letter grading.

103A. Mathematics and Pedagogy for Teaching Middle School Mathematics. (2) Seminar, one hour; fieldwork (classroom observation and participation), two hours. Requisite: course 115A. Course 103A is enforced requisite to 103B, which is enforced requisite to 103C. Facilitates student development in mathematical and pedagogical skills required to teach middle school mathematics curriculum. Exploration of California’s grades 6 through 8 mathematics from professional perspective, practice with effective teaching strategies for all learners, and discussion of current research and standards in mathematics education with fieldwork in local mathematics classrooms. P/NP (undergraduates) or S/U (graduates) grading.

103B. Observation and Participation: Mathematics Instruction. (2) Seminar, one hour; fieldwork (classroom observation and participation), two hours. Enforced requisite: course 103A. Observation, participation, or tutoring in mathematics classrooms at middle school and secondary levels. May be repeated for credit. P/NP (undergraduates) or S/U (graduates) grading.

103C. Observation and Participation: Mathematics Instruction. (2) Seminar, one hour; fieldwork (classroom observation and participation), two hours. Enforced requisite: course 103B. Observation, participation, or tutoring in mathematics classrooms at middle school and secondary levels. May be repeated for credit. P/NP (undergraduates) or S/U (graduates) grading.

105A. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, 120 minutes. Requisites: courses 110A (or 117), 120A (or 123), and 131A, with grades of C– or better. Course 105A is required to 105B, which is requisite to 105C. Mathematical knowledge and research-based pedagogy needed for teaching key geometry topics in secondary school, including axiomatic systems, measure, and geometric transformations. Introduction to professional standards and curruculum. Students should verify necessary computer software and complete the California Mathematics Teacher Certification Standards. P/NP grading.

105B. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, 120 minutes. Requisites: courses 110A (or 117), 120A (or 123), and 131A, with grades of C– or better. Mathematical knowledge and research-based pedagogy needed for teaching key geometry topics in secondary school. Development of intuition and problem-solving skills in collaborative learning environment. May be repeated four times, but only one unit may be applied toward graduation. P/NP grading.

105C. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, 120 minutes. Requisites: courses 105A, 105B, 110A (or 117), 120A (or 123), and 131A, with grades of C– or better. Mathematical knowledge and research-based pedagogy needed for teaching key analysis, probability, and statistics topics in secondary school. Development of professional standards and current research for teaching secondary school mathematics. Letter grading.

106. History of Mathematics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B, 32A. Roots of modern mathematics in ancient Babylonian, Egyptian, and Greek mathematics and the development of number systems and proof. Development of algebra through Middle Ages to Fermat and Abel, invention of analytic geometry and calculus. Selected topics. P/NP or letter grading.

Algebra, Number Theory, and Logic

110A-110B. Algebra. (4-4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Not open for credit to students with credit for course 117. Ring of integers, integral domains, fields, polynomial rings, unique factorization. 110B. Requisite: course 110A or 117. Groups, structure of finite groups.

110AH-110BH. Algebra (Honors). (4-4) Lecture, three hours; discussion, one hour. Honors sequence parallel to courses 110A, 110B.

110C. Algebra. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110A, 110B, Field extensions, Galois theory, applications to geometric constructions, and solvability by radicals.

111. Theory of Numbers. (4) Lecture, three hours; discussion, one hour. Requisite: courses 110A. Algebraic number theory (including prime ideal theory), cyclotomic fields and reciprocity laws, Diophantine equations (especially quadratic forms, elliptic curves), equations over finite fields, topics in theory of primes, including prime number theorem and Dirichlet’s theorem. P/NP or letter grading.

114C. Computability Logic. (4) Lecture, three hours; discussion, one hour. Requisite: courses 110A or 113A or Philosophy 135. Effectively calculable, Turing computable, and recursive functions; Church/Turing thesis. Normal form theorem; universal functions; uncomputability and undecidability results. Recursive and recursively enumerable sets; relative recursiveness, polynomial-time computability. Arithmetical hierarchy. P/NP or letter grading.

114L. Mathematical Logic. (4) Lecture, three hours; discussion, one hour. Requisite: courses 110A or 113A or Philosophy 135. Introduction to mathematical logic, aiming primarily at completeness and incompleteness theorems of Gödel. Propositional and predicate logic; set theory; model theory; semantics; formal deduction; completeness, compactness, and Lowenheim/Skolem theorems. Formal number theory: nonstandard models; Gödel incompleteness theorem. P/NP or letter grading.

114S. Introduction to Set Theory. (4) Same as Philosophy M134. Lecture, three hours; discussion, one hour. Requisite: course 110A or 113A or Philosophy 135. Axiomatic set theory as framework for mathematical concepts; relations and functions, numbers, cardinality, axiom of choice, transfinite numbers. P/NP or letter grading.

115A-115B. Linear Algebra. (5-4) P/NP or letter grading. 115A. Lecture, three hours; discussion, two hours. Requisite: course 33A. Techniques of proof, abstract vector spaces, linear transformations, and matrices; determinants; inner product spaces; eigenvalues and eigenvectors. 115B. Lecture, three hours; discussion, one hour. Requisite: course 115A. Linear transformations, conjugate spaces, duality; theory of a single linear transformation, Jordan normal form; bilinear and quadratic forms; Euclidean and unitary spaces; symmetric and orthogonal linear transformations, polar decomposition.

115AH. Linear Algebra (Honors). (5) Lecture, three hours; discussion, two hours. Requisite: course 33A with grade of B or better. Honors course parallel to course 115A, P/NP or letter grading.

116. Mathematical Cryptology. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Not open for credit to students with credit for Program in Computing 130. Introduction to mathematical cryp-
117. Algebra for Applications. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Not open for credit to students with credit for course 110A. Integers, congruences; fields; applications of finite fields; polynomials; permutations, introduction to groups.

118. Mathematical Methods of Data Theory. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, 115A. Course 120A is required to be enrolled with 120B. Curves in 3-space, Frenet formulas, surfaces in 3-space, normal curvature, Gaussian curvature, compactness, connectedness, functions, continuity, homeomorphisms, topological properties.

123. Foundations of Geometry. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Axiomatics, Euclidean geometry, Hilbert models, neutral (absolute) geometry, hyperbolic geometry, Poincaré model, independence of parallel postulate.

Analysis

131A-131B. Analysis. (4–4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, 115A, 131A. Course 120A is required to be enrolled with 120B. Curves in 3-space, Frenet formulas, surfaces in 3-space, normal curvature, Gaussian curvature, compactness, connectedness, functions, continuity, homeomorphisms, topological properties.

131B. Introduction to Topology. (4) Requisite: course 131A. Metric and topological spaces, completeness, connectedness, functions, continuity, homeomorphisms, topological properties.

132A-132B. Differential Geometry. (4–4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, 115A. Introduction to fundamental principles and spirit of modern mathematics; emphasis on those areas in which mathematical models are constructed for physical problems. Illustrations from many fields of endeavor, such as physical sciences, biology, economics, and traffic dynamics.

135. Ordinary Differential Equations. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32A, 32B, 131A. Linear systems of differential equations; boundary and initial value problems; wave equation, heat equation, and Laplace equation; separation of variables, eigenfunction 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, 131A. Introduction to fundamental principles and spirit of modern mathematics; emphasis on those areas in which mathematical models are constructed for physical problems. Illustrations from many fields of endeavor, such as physical sciences, biology, economics, and traffic dynamics.

151A-151B. Applied Numerical Methods. (4–4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, 115A. Topics include parametric and nonparametric probability distributions, curvatures of dimensionality, correlation analysis and dimensionality reduction, and concepts of decision theory. Advanced machine learning and pattern recognition problems, including data classification and clustering, regression, kernel methods, artificial neural networks, hidden Markov models, and Markov random fields. Projects in MATLAB to be part of final project presented in class. P/NP or letter grading.

154. Experience of Data Science. (4) Same as Statistics M148. Lecture, four hours. Requisites: courses 115A, 164, 170A or 170E, 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 data science terminology. Mathematical models, analyze data, and report results. Students may elect to undertake research on foundations of data science, such as data mining, statistics, and machine learning. Senior thesis with discussion of findings or survey of literature on chosen foundational topic. Development of collabora- tive skills, communication principles, and discussion of ethical issues. Letter grading.

151AH-151BH. Honors. (4–4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, 115A, 131A, Honors sequence parallel to courses 131A, 131B. P/NP or letter grading.

151AH-151BH. Honors. (4–4) Lecture, three hours; discussion, one hour. Requisite: 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.

151C. 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 for credit by petition.

152. Complex Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, 115A. Integration on curves and surfaces, harmonic analysis. Content varies from year to year. May be repeated for credit by petition.
and their distributions, expectation, moments and variance, conditional distribution and expectation, weak law of large numbers. P/NP or letter grading.

170B. Probability Theory II. (4) Lecture; three hours; discussion, one hour. Enforced requisites: courses 131A, 170. Continuation of rigorous preparation of probability theory based on real analysis. Moments and generating functions; laws of large numbers, central limit theorem, and convergence in distribution; branching processes; random walks; Poisson and other random processes in continuous time. Advise topics in probability theory. P/NP or letter grading.

170E. Introduction to Probability and Statistics 1: Probability. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 31A, 31B, 170A or 170S. Not open to students with credit for course 170A. Electrical and Computer Engineering 131A, or Statistics 100A. Introduction to probability theory with emphasis on topics relevant to applications. Topics include discrete (binomial, Poisson, etc.) and continuous (exponential, gamma, chi-square, normal) distributions, bivariate distributions, distributions of functions of random variables (including moment generating functions and central limit theorem). P/NP or letter grading.

170S. Introduction to Probability and Statistics 2: Statistics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B, and 170A or 170E or Statistics 100A. Not open for credit to students with credit for course 170A. Emphasizes sampling, estimation (maximum likelihood and Bayesian), properties of estimators, regression, confidence intervals, hypothesis testing, analysis of variance. P/NP or letter grading.

171. Stochastic Processes. (4) Lecture, three hours; discussion, one hour. Requisites: courses 33A, 170E (or Statistics 100A), 175 or 177. Discrete Markov chains, continuous-time Markov chains, renewal theory, P/NP or letter grading.

174E. Mathematics of Finance for Mathematics/Economics Students. (4) Lecture, three hours; discussion, one hour. Requisite: courses 33A, 170E (or Statistics 100A). Not open for credit to students with credit for course 174A. Topics include: maximization and efficiency. Emphasis on designing efficient algorithms. P/NP or letter grading.

177. Theory of Interest and Applications. (4) Lecture, three hours; discussion, one hour. Requisite: course 32B. Types of interest, time value of money, annuities and similar contracts, loans, bonds, portfolios, and financial planning. Emphasis on understanding the structure of interest rates, duration, convexity and immunization, interest rate swaps, financial derivatives, forwards, futures, and options. Letter grading.

178A. Foundations of Actuarial Mathematics: Life Insurance and Annuities. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 170A or 170E (or Statistics 100A). Designed for mathematics/education program majors. Topics include: measurement of risk, insurance and annuities, and profit-testing. Students meet on regular basis with instructor, provide periodic reports of their progress, have assigned reading in mathematics education literature, and complete a final paper. Letter grading.

184. Enumerative Combinatorics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 187, 187A, 187B, 187C, 188A, 188B, 188C. Emphasizes combinatorial algorithms useful in diverse areas such as bioinformatics and al location of resources. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Limited to junior/senior USIE facilitators. Individual study with faculty mentor required. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

188B. Individual Studies for USIE Facilitators. (1) Limited to junior/senior USIE facilitators. Individual study 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. Individual study with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188F. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188B. 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.

188G. 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. Directed Readings and Examinations in upper-division courses. 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: Mathematics. (4) Seminar, three hours. Variable topics research in mathematics that covers material not covered in regular mathematics upper-division curriculum. Reading, discussion, and development of culminating project. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

191H. Honors Research Seminars: Mathematics. (4) Seminar, three hours. Participating seminar on advanced topics in mathematics from year to year. May be repeated for credit by petition. P/NP or letter grading.

M192A. Introduction to Collaborative Learning Theory and Practice. (1) Formerly numbered 192A (Same as Chemistry M192E, Computer Science M192A, Life Sciences M192A, and Physics M192S). Seminar, one hour. Training seminar for undergraduate students who are selected for learning assistant (LA) program. Exploration of current topics in pedagogy and education research focused on methods of learning and their practical application in small-group settings. Students practice communication skills with greater depth through supplemental readings, papers, and frequent assessment of and feedback on progress. Letter grading.

195. Community Internships in Mathematics Education. (4) Tutorial, to be arranged. Limited to juniors/seniors. Internship to be supervised by Center for Community Learning and Development. Students meet on regular basis with instructor, provide periodic reports of their experience, have assigned readings in mathematics education literature, and complete a final paper. May not be repeated and may not be applied toward major requirements. Individual contract with supervising faculty member required. P/NP grading.

195A. Individual Studies in Mathematics. (2 or 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. At discretion of chair and subject to availability of staff, individual intensive study of topics suitable for undergraduate course credit but not specifically offered as separate courses. Scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of progress toward mathematics education content. Individual contract required. P/NP or letter grading.

195B. Directed Research or Senior Project in Mathematics. (2 or 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Scheduled meetings to be arranged between faculty member and student. Culminating report required. May be repeated for maximum of 12 units, but no more than one 197 or 199 course may be applied toward upper-division courses required for majors offered by Mathematics Department. Individual contract required. P/NP or letter grading.

Graduate Courses

Teacher Preparation

201A-201B-201C. Topics in Algebra and Analysis. (4–4–4) Preparation: bachelor's degree in mathematics. Designed for mathematics/education program majors. Important ideas about algebra and analysis, integration, differentiation, series and analytic functions. May not be applied toward MA degree requirements.

izing postulates, development of a logical structure of theorems. Modern topics such as operations research, linear programming, game theory, learning models, models in social and life sciences. May not be applied toward MA degree requirements.

203. Master’s Linear Algebra. (Lecture, four hours; recitation, one hour.) Rigorous treatment of fundamental results of pure and applied linear algebra over fields. Applications to contemporary research. Preparation for linear algebra portion of UCLA Mathematics comprehensive examination that is required of MA and PhD students. S/U or letter grading.

204. Master’s Analysis. (Lecture, four hours; discussion, one hour.) Rigorous treatment of fundamental results of analysis and applications to contemporary research. Preparation for analysis portion of UCLA Mathematics Basic Examination that is required of MA and PhD students. S/U or letter grading.

Number Theory

205A–205B. Number Theory. (4–4) Lecture, three hours. Requisites: courses 210A, 246A. Algebraic number theory, including ideal theory, valuations, local fields, cyclotomic fields. Introduction to classfield 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. Adelic analysis on GL(1) and GL(2), especially Tate thesis and Hecke theory, automorphic forms and 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.


209A. Cryptography. (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 notions of hardness, one-way functions, hard-core bits, pseudorandom generators, pseudorandom functions and pseudorandom permutations, semantic security, public-key and private-key encryption, secret-sharing, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, key-agreement, contract signing, and two-party secure computation with static security. Letter grading.

209B. Cryptographic Protocols. (Same as Computer Science M282B.) Lecture, four hours. Requisite: course 209A. Consideration of advanced cryptographic protocol design and analysis. Topics include noninteractive zero-knowledge proofs, zero-knowledge proofs with current and non-current knowledge, zero-knowledge; IP=PSPACE proof, stronger notions of security for public-key encryption, including chosen-ciphertext security; secure multiparty computation; oblivious transfer; identification; public-key identification; noninteractivity and composability of secure protocols; software protection; threshold cryptography; identity-based cryptography; private information retrieval; protection against man-in-the-middle attacks; voting protocols; identification protocols; digital cash schemes; lower bounds on use of cryptographic primitives, software obfuscation. May be repeated for credit with topic change. Letter grading.

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 theorems of Sylow and Jordan/Holder/Schur; rings and ideals, factorization theory in integral domains, modules over principal ideal rings, Galois theory of fields, multilinear algebra, structure of algebras.


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 algebra, dg-categories, tilting theory and applications of group cohomology to representation theory, stable categories and modular representation theory, and other current current topics.

213A–213B. Theory of Groups. (4–4) Requisites: course 210A. Topics include representation theory, transfer theory, infinite Abelian groups, free products and presentations of groups, solvable and nilpotent groups, classical groups, algebraic groups.


216A–216B–216C. Further Topics in Algebra. (4–4–4) Lecture, three hours. Requisites: courses 210A, 210B, 210C. Closer examination of areas of current research in algebra, including algebraic geometry and K-theory. Variable content may include Abelian varieties, invariant theory, Hodge theory, geometry over finite fields, K-theory, homotopical algebra, and derived algebraic geometry. May be repeated for credit by petition. S/U or letter grading.

217. Geometry and Physics. (4) (Same as Physics M236.) 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 manifolds, mirror symmetry and duality, integral systems. S/U or letter grading.


218C. Topics in Discrete Mathematics. (Lecture, three hours. Examination of variety of methods, approaches, and techniques that were developed in last 30 years in discrete mathematics. Topics may include extremal problems for graphs and set systems, Ramsey theory, additive and combinatorial geometry, topological methods in combinatorics, entropy and other tools from information theory, discrete harmonic analysis and its applications to combinatorics. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.

Logic and Foundations

220A–220B–220C. Mathematical Logic. (4–4–4) Lecture, three hours. Requisites: courses 145A–145B. Fundamental methods and results in mathematical logic, using mathematical methods to reason about existence or nonexistence of proofs and constructions in many different settings. Topics include compactness theorem, saturation of models, completeness and incompleteness theorems of Gödel, Turing computability and degrees of unsolvability, 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. Requisites: course 210A. Partially ordered sets, lattices, distributivity, modularity; completeness, interaction with combinatorics, topology, and logic; algebraic systems, congruence lattices, subdirectly irreducible lattices, congruence laws, equational bases, applications to lattices.

223C. Topics in Computability Theory. (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. (Lecture, three hours. Requisites: courses 220A, 220B. Classical and effective results on Borel and projective sets; infinite 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. (Lecture, four hours. Requisites: courses 220A, 220B. Ultraproducts, preservation theorems, interpolation theorems, saturated models, omitting types, categoricity, two cardinal theories, enriched languages, soft model theory, and applied model theory. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.

223S. Topics in Set Theory. (Lecture, three hours. Requisites: courses 220A, 220B, 220C. Forcing and independence results, including independence of continuum hypothesis and independence of axiom of choice; inner model theory; large cardinals; proofs of determinacy; combinatorial set theory. 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. (Lecture, three hours; discussion, one hour. Manifolds, tangent vectors, smooth maps, tangent bundles and vector bundles in general, vector fields and integral curves, Sard theorem on measure of critical values, embedding theorem, transversality, degree theory, Lefschetz fixed-point
225B. Differential Geometry. (4) Lecture, three hours; discussion, one hour. Lie derivatives, integrable distributions, Frobenius theorem, foliations, differential forms, integration and Stokes theorem, de Rham cohomology, including Mayer/Vietoris sequence, Poincaré duality, Thom classes, degree theory and Euler characteristic revisited from viewpoint of de Rham cohomology, Riemannian metrics, gradients, volume forms, and interpretation of classical integral theorems as aspects of Stokes theorem for differential forms. S/U or letter grading.

225C. Algebraic Topology. (4) Lecture, three hours; discussion, one hour. Basic concepts of homotopy theory, fundamental group and covering spaces, singular homology and cohomology theory, axioms of homotopy theory, Mayer/Vietoris sequence, calculation of homology and cohomology of standard spaces, cell complexes and cellular homology, de Rham theorem on isomorphism of de Rham differential-form cohomology and singular cohomology with real coefficients. S/U or letter grading.

226A-226B-226C. Differential Geometry. (4–4–4) Lecture, three hours. Requisite: course 225A. Manifold theory; connections, curvature, torsion, and parallelism. Riemannian geometry: completeness, cut loci, geodesics; conjugate points, variational methods, Myers theorem, nonpositive curvature. Further topics such as pinched manifolds, integral geometry, Kahler manifolds, symmetric spaces.


234. Topics in Differential Geometry. (4) Lecture, four hours. Requisites: courses 225A, 225B, 227A, 229A. Emphasis on low-dimensional manifolds. Structure and classification of manifolds, automorphisms of manifolds, submanifolds (e.g., knots and links). Topics vary from year to year. May be repeated for credit by petition.

236. Topics in Geometric Topology. (4) Lecture, three hours. Requisites: courses 225A, 225B, 227A, 227B. Emphasis on knot theory, fiber spaces and classifying spaces, characteristic classes, homology and cohomology theory. Topics vary from year to year. May be repeated for credit by petition.

238A-238B. Dynamical Systems. (4–4) Lecture, three hours. Recommended preparation: first-year analysis courses. Topics include qualitative theory of differential equations, bifurcation theory, and Hamiltonian systems; differential dynamics, including hyperbolic, ergodic, and quasi-periodic dynamics; discrete ergodic theory; low-dimensional dynamics. S/U or letter grading.


250C. Advanced Topics in Ordinary Differential Equations. (4) Requisites: courses 250A, 250B. Selected topics, such as spectral theory or ordinary differential operators, nonlinear boundary value problems, celestial mechanics, approximation of solutions, and Volterra equations.


251B-251C. Topics in Partial Differential Equations. (4–4) In depth treatment of selected topics in partial differential equations or their applications.


254A-254B. Topics in Real Analysis. (4–4) Requisites: courses 245A, 245B, 245C, 246A, 246B, 246C. Selected topics in analysis and its applications to geometry and differential equations. Topics may vary from year to year. May be repeated for credit by petition.


255B-255C. Topics in Functional Analysis. (4–4) Requisite: course 255A. Topics include Banach algebras, operators on Banach spaces and Hilbert space, semigroups of operators, linear topological vector spaces, and other related areas.


Applied Mathematics


266D-266E. Applied Differential Equations. (4–4) 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.


**268C. Topics in Applied Functional Analysis.** (4) Requisite: course 255A. Topics include spectral theory with applications to differential operators, eigenvalue problems, generalization to partial differential equations, S/U or letter grading.


**270A-270F. Mathematical Aspects of Scientific Computing.** (4 each) Lecture, three hours. S/U or letter grading.


**271D. Wave Mechanics.** (4) General concepts of mechanical systems (states, space-time, logics, etc.). Classical and quantum examples. Correspondence principle. S/U or letter grading.


**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.


**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 must be approved by the instructor. Emphasis on current network processes on networks, mesoscale structures in networks, time-dependent networks, multilayer networks, applications of network data analysis in networks, spatial networks, and others. Discussion of recent review articles and research papers. Some presentations by students. Joint project on topic in network science possibly leading to publication. S/U or letter grading.

**Special Studies**

**280. Programming++ for Mathematics Graduate Students.** (4) Lecture, three hours. Preparation: preparation for 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 programming. Students gain design and hardware. S/U or letter grading.

285A-285N. Seminars. (4 each) Seminar, three hours. Emphasis on programming environment details, both software and hardware. S/U or letter grading.

16A. Python with Applications I. (B) Formerly numbered 16E. Lecture, three hours; discussion, two hours. Requisites: course 10A, Computer Science 31, or equivalent, with grades of C– or better. In-depth introduction to Python programming language and to students who have already taken beginning programming course in strongly typed, compiled language (C++, C, or Fortran). Core Python language constructs, applications, text processing, data visualization, interaction with spreadsheets and SQL databases, and creation of graphical user interfaces. P/NP or letter grading.

16B. Python with Applications II. (L) Lecture, three hours; discussion, two hours. Requisite: course 16A or equivalent. In-depth application of Python programming language to problems arising in variety of areas of current interest such as machine learning, computer vision, statistical analysis, numerical analysis, and data acquisition, programming techniques to improve computational efficiency. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of immediate intellectual and cultural importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20A. Principles of Java Language with Applications. (L) Lecture, three hours; discussion, two hours; laboratory, eight hours. Requisite: course 10A or Computer Science 31. Not open for credit to students with credit for course 3. Introduction to Java computer language. Class and interface hierarchies; graphics components and graphical user interfaces; streams, multithreading; event and exception handling. Issues in class design and default interface of web pages. P/NP or letter grading.

40A. Introduction to Programming for Internet. (L) Lecture, three hours; discussion, two hours. Requisites: course 10A or Computer Science 31 or equivalent, and one from course 10B, 16A, 20A, Computer Science 31, or equivalent, or better. Introduction to programming for World Wide Web for students with strong foundation in programming. HTML5 and CSS3 markup languages to design websites; client-side scripting with JavaScript to enable event-driven interactivity, animations, and cookie tracking; server-side scripting with PHP to render HTML pages, store, and retrieve data on server; and introduction to databases through SQLite3. 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. Considered equivalent to 4 units. Individual contract required. Honors content noted on transcript. Letter grading.

Graduate Courses

285C–285L. Seminars. (Each) Seminar, three hours. Considered equivalent to 4 units. Limited to 30 students. May be repeated for credit. P/NP for 4 units. Topics in various computational fields by means of lectures and informal conferences with staff members. S/U or letter grading.


296. 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 curriculum and instruction at UCLA. 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.

Upper-Division Courses

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 10B, 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 implementation of programming not covered in regular program in computing courses. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 30 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. Considered equivalent to 4 units. Individual contract required. Honors content noted on transcript. 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 assistants designed to deal with problems and techniques of teaching college mathematics. S/U grading.

10B. Intermediate Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Requisite: course 10A or Computer Science 31. Abstract data types and their implementation using C++; class mechanisms, linked lists, stacks, queues, trees, and hash tables; applications; object-oriented programming and software reuse; recursion; algorithms for sorting and searching. P/NP or letter grading.

10C. Advanced Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: course 10B. More advanced algorithms and data structure techniques; additional emphasis on algorithmic efficiency; advanced features of C++, such as inheritance and virtual functions; graph algorithms. P/NP or letter grading.
Overview
In recent years economics has become increasingly dependent on mathematical methods, and the mathematical tools it employs have become more sophisticated. Mathematically competent economists, with bachelor’s degrees and with advanced degrees, are needed in industry and government. Graduate programs in economics and finance programs in graduate schools of management require strong undergraduate preparation in mathematics for admission.

Undergraduate Major
Mathematics/Economics BS
The Mathematics/Economics BS degree program is designed to give students a solid foundation in both mathematics and economics, stressing those areas of mathematics and statistics that are most relevant to economics and the parts of economics that emphasize the use of mathematics and statistics. It is ideal for students who may wish to complete a higher degree in economics.

Learning Outcomes
The Mathematics/Economics major has the following learning outcomes:

- Strong mathematical content knowledge of single and multivariable differential and integral calculus and differential equations
- Familiarity with linear algebra, techniques of proof, and the foundations of real analysis
- Ability to synthesize material, problem solve, and think abstractly
- Ability to perform basic computer programming, especially in C++

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 premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor 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 premajor 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.

Premajor
Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics/Economics premajor at the time they apply for admission are automatically admitted to the premajor.

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.

Policies
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.

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 microeconomics theory course, one macroeconomics 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.

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; five economics courses, including Economics 101, 102, 103 (with 103L), and two additional courses from 106E through 199B.

Mathematics 115A is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

Policies
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.

To qualify for honors at graduation, students must (1) complete Mathematics 115AH, 131AH, and 131BH, (2) complete Economics
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.

Overview

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.

Undergraduate Majors

Aerospace Engineering BS

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 aeroelasticity, dynamics, 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 lightweight 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

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, 1C, 4AL, 4BL.

The Major
Required: Mechanical and Aerospace Engineering 1, 101, 102, 103, 106A, 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—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 courses (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, 136, 137, 138, CM140, 150C, C150G, 150R, 154B, 154S, 155, C156B, 157A, 161A through 161C, C162B, C163A, C163B, C163C, 166C, M168, 169A, 171B, 172, 174, C175A, 181A, 182B, 182C, 183A, M183B, C1383C, 185, C186, C187L.

For information on UC, school, and general education requirements, see the Samuei 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

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, 1C, 4AL, 4BL.

The Major
Required: Mechanical and Aerospace Engineering 1, 101, 102, 103, 106A, 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 Mechanical and Aerospace Engineering 150B, C150R, 154S, 161A, 161B, 161C (unless taken as a required course), or from 94, 131A, C131G, 133A, 135, 136, 137, 138, CM140, 150C, C150G, 150R, 154B, 154S, 155, C156B, 157A, 161A through 161C, C162B, C163A, C163B, C163C, 166C, M168, 169A, 171B, 172, 174, C175A, 181A, 182B, 182C, 183A, M183B, C1383C, 185, C186, C187L.

For information on UC, school, and general education requirements, see the Samuei school section in College and Schools.

Graduate Majors
Aerospace Engineering
MS, PhD

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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, automation, entertainment, energy, and manufacturing industries. P/NP grading.
Upper-Division Courses


102. Dynamics of Particles and Rigid Bodies. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mathematics 31A, 33A, Physics 1A. Review of mechanics of Newtonian mechanics. Kinematics and kinetics of particles and rigid bodies in two and three dimensions. Impulse-momentum and work-energy relationships. Applications. Letter grading.


105A. Introduction to Engineering Thermodynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Chemistry 33B, 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.

105D. 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.

107. 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 90A, 101, 102. Introduction to modeling of physical systems, with examples of linear and nonlinear, and discrete and continuous. Description of these systems with coverage of impulse response, convolution, frequency response, first- and second-order system transient response analysis, and numerical solution. Nonlinear differential equation descriptions with discussion of equilibrium solutions, small signal linearization, large signal response. Block diagram representation and response of interconnections of systems. Hands-on experiments reinforce lecture material. Letter grading.


131G. Microscopic Energy Transport. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 101, 102, and 156A or 166A. Introduction to microscopic methods of energy transport. Statistical mechanics; Boltzmann equation; phase space; 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. Concurrently scheduled with course C231G. Letter grading.

133A. Engineering Thermodynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 103, 105A. Applications of thermodynamic principles to engineering processes. Energy conversion systems. Rankine cycle and other cycles, refrigeration, psychrometry, reactive and non-reactive flows. Elements of thermodynamic design. Letter grading.

135. Fundamentals of Nuclear Science and Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 82, Chemistry 82. Review of nuclear physics, radioactivity and decay, and radiation interaction with matter. Nuclear fission and fusion processes and mass defect, chain reactions, criticality, neutron diffusion and multiplication, heat transfer, and applications. Introduction to nuclear power plants for commercial electricity production, space power, spacecraft propulsion, nuclear fusion, and nuclear science for medical use. Letter grading.

136. Energy and Environment. (4) Formerly numbered 136C. Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 105A or equivalent. Global energy use and supply, electric power generation, fossil fuel and nuclear power plants, renewable energy such as hydropower, biomass, geothermal, solar, wind, and ocean, fuel cells, transportation, energy conservation, air and water pollution, government regulations. Letter grading.

137. Design and Analysis of Smart Grids. (4) Lecture, four hours; outside study, eight hours. Demand response systems; smart grids; and communication systems; energy storage, electric vehicles; monitoring; distribution and transmission grid; consumer-centric technologies; sensors, communications, and computing; wireline, wireless, 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 C237. Letter grading.


139. Introduction to Biomechanics. (4) (Same as Bioengineering CM140.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 101, 102, and 156A or 166A. Introduction to biomechanics of human body; skeletal adaptation to mechanical loads. Basic concepts of thermodynamics and kinetics. Fluid mechanics applications. Heat and mass transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with course CM140. Letter grading.


150C. Combustion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 103, 105A. Thermodynamic systems of internal combustion engines; heating applications. Letter grading.

150G. Fluid Dynamics of Biological Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 103. Mechanics of aquatic locomotion; insect and bird flight aerodynamics; pulsatile flow in circulatory systems; rheology of blood; transport in microcirculation; role of fluid dynamics in arterial diseases. Concurrently scheduled with course C250G. Letter grading.

150P. Aircraft Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 105A, 105G. Thermodynamic properties of gases, aircraft jet engine cycle analysis and component performance, component matching, advanced aircraft engine topics. Concurrently scheduled with course C250P. Letter grading.

150R. Rocket Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 105A, 105G. Rocket propulsion concepts, including chemical rockets (liquid, gas, and solid propellants), hybrid rocket engines, electric (ion, plasma) rockets, nuclear rockets, and solid powered vehicles. Current issues in launch vehicle technologies. Concurrently scheduled with course C250R. Letter grading.

15A. Preliminary Design of Aircraft. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 154S. Classical pre-

154S. 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 of aircraft. Effects of airplane flexibility on stability derivatives. Letter grading.


156A. Advanced Strength of Materials. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 82, 101. Not open to students with credit for course 166A. Concepts of stress, strain, and material behavior. Stresses in loaded beams with symmetric and asymmetric cross sections. Torsion of cylinders and thin-walled structures, shear flow. Stresses in pressure vessels, press-fit and shrink-fit problems, rotating shafts. Curved beams. Contact stresses. Strength and failure, plastic deformation, fatigue, elastic instability. Letter grading.

C156B. Mechanical Design for Power Transmission. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Requisite: course 156A or 166A. Material selection in mechanical design. Load and stress analysis. Deflection and stiffness. Failure due to static loading. Fatigue failure. Design for safety factors and reliability. Applications of failure prevention in design of power transmission shafting. Design project involving computer-aided design (CAD) and finite element analysis (FEA) models. Concurrently scheduled with course C296A. Letter grading.

157. Basic Mechanical and Aerospace Engineering Laboratory. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 101, 102, 103, 156A, 166A. Practices and experiments of basic quantities and performance of basic experiments in fluid mechanics, structures, and thermodynamics. Primary sensors, transducers, recording equipment, signal processing, and data analysis. Letter grading.

157A. Aerospace Design Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisites: courses 150A, 157. Recommended: course 150B, C150R. Experimental illustration of important physical phenomena in area of fluid mechanics/aerodynamics, as well as hands-on experience with design and construction of experimental programs and use of modern experimental tools and techniques field. Letter grading.

161A. Introduction to Astronautics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 102. Recommended: course 82. Spacelift, including two-body and three-body problem, Kepler laws, and Keplerian orbits. Ground track and taxonomy of common orbits. Orbital and translational dynamics, adiabatic flow, shock waves, blackbody radiation, and propulsion theory, low-thrust trajectories, spacecraft pointing, and spacecraft attitude control. Space mission design, space environment, rendezvous, reentry, and launch. Letter grading.

161B. Introduction to Space Technology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended preparation: courses 102, 161A. Spacecraft systems and dynamics, including spacecraft power, instruments, communications, structures, materials, thermal control, and attitude/orbit determination and control. Space mission design, launch vehicles/considerations, space propulsion. Letter grading.

161C. Spacecraft Design. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 161B. Preliminary design and selection of students of Earth-orbiting or interplanetary space missions and spacecraft. Students work in groups of three or four, with each student responsible primarily for one subsystem. Concurrently scheduled with course C263B. Letter grading.


C162B. Compliant Mechanism Design. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisite: linear algebra. Design of compliant mechanisms; synthesis, approaches, modeling techniques, and optimization tools. Fundamentals of flexible constraint design principle of constraint-based design, projective geometry, screw theory, kinematics, and freedom and constraint topologies. Applications: precision motion stages, general purpose flexure bearings, microstructural architectures, MEMs, optical mounts, and nano-positioning. Kinematically-driven on-exenses include build-your-own flexure kits, CAD and FEA simulations, and term project. Concurrently scheduled with course C194A. Letter grading.

162D. Mechanical Engineering Design I. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisite: courses 94, 156A or 156B, 162A (or 171A). Limited to seniors. First of two mechanical engineering capstone design courses. Design, build, and test their team design project. Students work in teams to design their team’s two-term project. Fundamental law of gearing and various gear trains. Computer-aided mechanism design and analysis. Letter grading.

162E. Mechanical Engineering Design II. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisite: course 162D. Limited to seniors. Second of two mechanical engineering capstone design courses. Students group continue their design, prototyping, and testing. Concurrently with course CAD design laboratory, CAD analysis laboratory, and mechatronics laboratory. Design theory, design tools, economics, marketing, manufacturability, quality, intellectual property, manufacturing, and assembly, design for safety and reliability, and engineering ethics. Students conduct hands-on design, fabrication, and testing. Culminating project demonstrates or competition. Preparation of design project presentations in both oral and written formats. Letter grading.

C163A. Kinematics of Robotic Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 155, 171A. Kinematical models of serial robotic manipulators, including spatial descriptions and transformation (Euler angles, Denavit-Hartenberg/DH parameters, equivalent angle vector), frame assignment in redundancy, direct kinematics, inverse kinematics (geometric and algebraic approaches), mechanical design topics. Concurrently scheduled with course C283A. Letter grading.

C163B. Dynamics of Robotic Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course C163A. Dynamics of robotic systems using multi-body and solid mechanics and heat transfer. First of two mechanical engineering capstone design courses. Design, build, and test their team design project. Students work in teams to design their team’s two-term project. Fundamental law of gearing and various gear trains. Computer-aided mechanism design and analysis. Letter grading.
to laboratory electromechanical systems. Power spectrum models of noise and disturbances, and performance trade-offs imposed by conflicting requirements. Constraints on sensitivity function and complementary sensitivity function imposed by nonminimum phase transfer functions. Laplace transform; 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. Requires: Mathematics 33A. Introduction to probability theory; random variables, distributions, functions of random variables, models of failure components, reliability, Markov models, systems, strength models, fault tree analysis, statistical quality control by variables and by attributes. Acceptance sampling. Letter grading.

C175A. Probability and Stochastic Processes in Dynamical Systems. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 82, 107. Probability spaces, random variables, stochastic sequences and processes, expectation, conditional expectation, Gaussian/Markov sequences, and minimum variance estimator (Kalman filter) with applications. Concurrently scheduled with course C271A. Letter grading.


M183B. Introduction to Microscale and Nanoscale Manufacturing. (4) (Same as Bioengineering M153, Chemical Engineering M153, and Electrical and Computer Engineering M153.) Lecture, three hours; laboratory, four hours; outside study, five hours. Enforced requisites: Chemistry 29A, Physics 1A, 1B, 1C, 4AL. Introduction to manufacturing nanoscale processes. Scale-down and bottom-up (self-assembly) nanofabrication. Focus on concepts, physics, and instruments of various microfabrication and nanofabrication techniques that have been broadly adopted in industry and academia, including various photolithography technologies, physical and chemical deposition methods, and physical and chemical etching methods. Hands-on experience for building microstructures and nanostructures in modern cleanroom environment. Letter grading.

C183C. Rapid Prototyping and Manufacturing. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisite: course 183A. Rapid prototyping (RP), solid freeform fabrication, or additive manufacturing has emerged as popular manufacturing technology to accelerate product creation in last 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 because of their complex shapes or of variety in materials. In analogy to speed and flexibility of desktop publishing, rapid prototyping is also called desktop manufacturing, with actual three-dimensional, solid objects instead of mere two-dimensional images. Methodology of rapid prototyping has also been extended into meso-micro-Nano-scale to produce three-dimensional functional miniature components. Concurrently scheduled with course C297A. Letter grading.

185. Introduction to Radio Frequency Identification and Its Application in Manufacturing and Supply Chain. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course M20 or Civil Engineering M20 or Computer Science 31. Manufacturing technology introduces individuals into assembled products, shipping of such products, and eventually use, maintenance, and recycling of such products. Radio frequency identification (RFID) chips installed on components, subassemblies, and assemblies of products allow them to be tracked automatically as they move and transform through manufacturing supply chain. RFID tags have memory and small amount of information about product status to be written, stored, and transmitted wirelessly. Tag data can then be forwarded by reader to enterprise software by way of RFID middleware layer. Study of how RFID is being utilized in manufacturing, with focus on automotive and aerospace. Letter grading.


C187L. Nanoscale Fabrication, Characterization, and Biotechnology Laboratory. (4) Lecture, two hours; laboratory, three hours; outside study, seven hours. Multidisciplinary course that introduces laboratory techniques of nanoscale fabrication, characterization, and biotechnology. Basic physical, chemical, and biological principles related to these techniques, top-down and bottom-up nanofabrication, nanocharacterization (AEM, SEM, etc), and optical and electrochemical biosensors. Students encouraged to create their own ideas in self-designed experiments. Concurrently scheduled with course C287L. Letter grading.

188. Special Courses in Mechanical and Aerospace Engineering. (2 to 4) Lecture, two to four hours; outside study, four to ten hours. Study of special topics in mechanical and aerospace engineering for undergraduate students taught on experimental or temporary basis, such as those taught by resident and visiting faculty members, or offered concurrent with credit with topic or instructor change. P/NP or letter grading.

194. Research Group Seminars: Mechanical and Aerospace Engineering. (2 to 4) Seminar, two hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field. Student presentation of projects in research specialty. May be repeated for credit. P/NP or letter grading.

199. Directed Research in Mechanical and Aerospace Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research projects. Independent investigation supervised by 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

231A. Convective Heat Transfer Theory. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 131A, 182B. Recommended: course 105D. Convective heat transfer behavior of materials and radiative energy is introduced. Emphasis will be placed on the following 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. Focus on modeling and studying material interactions in addition to traditional areas such as combustion and thermal insulation. Letter grading.

231C. Phase Change Heat Transfer and Two-Phase Flow. (4) Lecture, four hours; outside study, eight hours. Requisite: course 105D. Radiative properties of materials and radiative energy transfer. Emphasis will be placed on the following 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. Focus on modeling and studying material interactions in addition to traditional areas such as combustion and thermal insulation. Letter grading.

231D. Radiation Heat Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 105D. Radiative properties of materials and radiative energy transfer. Emphasis will be placed on the following 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. Focus on modeling and studying material interactions in addition to traditional areas such as combustion and thermal insulation. Letter grading.


231G. Microscopic Energy Transport. (4) (Formerly numbered 231G.) Lecture, four hours; outside study, eight hours. Requisite: course 105D. Study of basic principles of transportation of energy in natural and fabricated structures by three carriers: electrons, phonons, and molecules. Study of properties of energy 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 scales. Concurrently scheduled with course C313G. 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 and applications of nanofabrication for these energy technologies involving nanotechnology. Focus on basics of thermodynamic, solid state, quantum mechanics, electromagnetics, and statistical physics. Topic discussions given for examples that connect technological 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. Focus on recent advances in energy and environment. Global energy use and supply, electrical power generation, fossil fuel and nuclear power plants, renewable energy such as hydropower, biomass, geothermal, solar, wind, and 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. Demand response; transactive/price-based load control; home-
Examples include transonic flow, hypersonic flow, sonic booms, and unsteady aerodynamics. Letter grading.

255A. Advanced Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 155, 169A. Variational principles and Lagrange equations. Kinematics and dynamics of rigid bodies; processes of rotation and translation; stability determination by simulation, linearization, and Laguvov direct method; the Hamiltonian as a Laguvov function; nonautonomous systems; averaging and perturbation methods of nonlinear systems; parametric excitation and nonlinear resonance. Application to mechanical systems. Letter grading.

255B. Mathematical Methods in Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 250B or consent of instructor. Determination of general solutions to systems of differential equations; phase plane analysis; introduction to Lyapunov stability theory. Letter grading.

256A. Linear Elasticity. (4) (Same as Civil Engineering M230A.) Lecture, four hours; outside study, eight hours. Requisite: course 156A or 166A. Linear elastostatics. Cartesian tensors; infinitesimal strain tensor; Cauchy stress tensor; strain energy; equilibrium equations; linear constitutive relations; plane elastic problems; holes, corners, cracks; three-dimensional problems of Kelvin, Boussinesq, and Cerruti. Introduction to boundary integral equation method. Letter grading.

256B. Nonlinear Elasticity. (4) (Same as Civil Engineering M230B.) Lecture, four hours; outside study, eight hours. Requisite: course M256A. Kinematics of deformation, material and spatial coordinates, deformation gradient tensor; nonlinear and linear strain tensors; strain measures; balanced and Cauchy and Piola stresses, Cauchy equations of motion, balance of energy; stored energy; constitutive relations; elastic, hyperelastic, thermoelasticity; linearization of field equations; solution of selected problems. Letter grading.

256C. Plasticity. (4) (Same as Civil Engineering M230C.) Lecture, four hours; outside study, eight hours. Requisite: course M256A. Dislocations, plastic slip, yield criteria, elementary stress analyses; analytical and numerical methods for calculation of crack tip stress intensity factors; engineering applications in stiffened 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 elastodynamics; Cauchy equation of motion, constitutive relations, boundary and initial conditions, principle of energy. Sources and waves in continua; elastic, anisotropic, and dissipative solids. Half-space problems. Guided waves in layered media. Applications to dynamic fracture, nondestructive evaluation (NDE), and mechanics of earthquakes. Letter grading.

258A. Nanomechanics and Micromechanics. (4) Lecture, four hours; outside study, eight hours. Requisite: course M256A. Analytical and computational modeling methods to describe mechanics of materials at scales ranging from atomistic through microstructure or transitional and up to continuum. Discussion of atomistic simulation methods (e.g., molecular dynamics, Langevin dynamics, and kinetic Monte Carlo) and their applications. Development and applications of dislocation dynamics and statistical mechanics methods in areas of nanomechanics and microstructure self-organization, heterogeneous plastic deformation, inverse problems, and dislocation 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 ultrathin nanolayer materials), nanoindentation, smart (active) materials, nanobending and microbending, and torsion. Letter grading.

259A. Seminar: Advanced Topics in Fluid Mechanics. (4) Seminar, four hours; outside study, eight hours. Advanced study of topics in fluid mechanics, with intensive student participation 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 on topics which may vary from term to term. Topics include: nonlinear 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. Review of finite element method to classical and state-of-art modeling and analysis of structural systems. Introduction to commercial mainsteam finite element package—ABAQUS—and demonstration of how to use it in advanced way. Topics include review of finite element method, static and dynamic linear elasticity, finite deformation of hyperelastic materials, instability analysis, fracture, and implementation of user-defined subroutines in ABAQUS. Term projects using computer programs. Letter grading.


263A. Kinematics of Robotic Systems. (4) (Formerly numbered 263A.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course C256B. Kinematics of robotic manipulators, including spatial and temporal descriptions and transformations along direct and inverse kinematics, linear and angular velocities, Jacobian matrix, singularities and singular value decomposition, inverse kinematics, and redundancy. Letter grading.

263B. Dynamics of Robotic Systems. (4) (Formerly numbered 263B.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course C263A. Recommended course: 255B. Dynamics of Robotic Systems. Development of mathematical models of robotic manipulators, including review of spatial descriptions and transformations along direct and inverse kinematics, linear and angular velocities, Jacobian matrix, singularities and singular value decomposition, inverse kinematics, and redundancy. Letter grading.

264B. Control of Robotic Systems. (4) (Formerly numbered 263C.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course C256B. Sensors, actuators, and control schemes for robotic systems, including computed torque control, linear feedback control, force feedback control, and advanced control from nonlinear and adaptive control, hybrid control, nonholonomic systems, vision-based control, and perception. Concurrently scheduled with course C163C. Letter grading.

265A. Advanced Topics in Robotics and Control. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 263C. 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, haptic, and force feedback. Letter grading.


266B. Advanced Dynamics of Structures. (4) Lecture, four hours; outside study, eight hours. Requisite: course M266A. Analysis of linear and nonlinear response of structures to dynamic loads. Stresses and deflections in structures, and self damping or self-induced vibrations. Letter grading.

269A. Aerostatic Effects in Structures. (4) Lecture, four hours; outside study, eight hours. Requisite: course M269A. Presentation of field of aerostatic effects with emphasis on pressure fields, stress fields, and pressure differential on suspension bridges, buildings, and other structures. Derivation of aerostatic operators and unsteady airloads due to changing wind and gravitational forces. Flow interaction and response of structural systems. Letter grading.

270A. Linear Dynamic Systems. (4) (Same as Chemical Engineering M268A and Electrical and Computer Engineering M240A.) Lecture, four hours; outside study, eight hours. Requisite: course 171A or Electrical and Computer Engineering 141. State-space description of linear time-invariant (LTI) and time-varying (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, and observability. Stabilization design via state feedback and observers; separation principle. Connections with transfer function techniques. 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 solutions to linear quadratic (LQ) optimal control problems for continuous-time and discrete-time systems, finite- and infinite-time problems; Hamiltonian systems and optimal control; algebraic and differential Riccati equations; implications of controllability, stabilizability, observability, and detectability. Letter grading.

270C. Optimal Control. (4) (Same as Chemical Engineering M268C and Electrical and Computer Engineering M240C.) Lecture, four hours; outside study, eight hours. Requisite: course 270B. Applications of Pontryagin maximum principle, Hamilton/Jacob Belman equation (dynamic programming) to optimal control of dynamic systems modeled by nonlinear ordinary differential equations. Letter grading.

271A. Probability and Stochastic Processes in Dynamical Systems. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 82, 141. Probability spaces and processes, expectation, conditional expectation, Gauss/Markov sequences, and minimum variance estimator (Kalman filter) with applications. Concurrently scheduled with course C176A. Letter grading.
Mechanical and Aerospace Engineering / 631

271B. Stochastic Estimation. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course C271A. Linear and nonlinear estimation theory, orthogonal projection lemma, Bayesian filtering theory, conditional mean and risk estimators. Letter grading.


271D. Seminar: Special Topics in Dynamic Systems Control. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course 271C. Preliminary 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.


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 and design of dynamical systems. System-theory-based digital control algorithms and robustness properties, Youla parameterization of stabilizing controllers, previewed optimal feedforward compensator, repetitive and resonant adaptive control. Real-time control investigation of topics to selected mechatronic systems. Letter grading.

278. Dynamics and Control of Biological Oscillations. (4) Lecture, four hours; outside study, eight hours. Requisite: course 277. Analysis of the design of dynamical mechanisms underlying biological control systems that generate coordinated oscillations. Topics include neuronal information processing through action potentials (spike train), central pattern generator, coupled nonlinear oscillators, optimal gaits (periodic motion) for animal locomotion, and entrainment to natural oscillations via feedback control. Letter grading.

M290L. Microelectromechanical Systems (MEMS) Fabrication. (4) (Same as Bioengineering M290L and Electrical and Computer Engineering M290L.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course M183B. Advanced discussion of micromaching processes used to construct MEMS. Coverage of many lithographic, deposition, and etching processes, as well as their combination in process integration. Materials issues such as chemical resistance, mechanical properties, and residual/intrinsic stress. Letter grading.

281. Microsciences. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 102, 105, 105D. Fundamental issues of being in microscopic world. Introduction to microscale 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 M252.) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to MEMS design. Design methods, design rules, sensing and actuation mechanisms, microsensors, and micro- actuators. Designing MEMS to be produced with both foundry and custom processes. Computer-aided design for MEMS. Design project required. Letter grading.

284. Sensors, Actuators, and Signal Processing. (4) Lecture, four hours; outside study, eight hours. Prerequisites: course 292A. Introduction to sensor and signal processing. Applications of using unique properties of micro transducers for distributed and real-time control of engineering problems. Associated signal processing requirements for these applications. 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 dynamics of triple line. Presentation of various applications, including wetting, change of phase (boiling and condensation), forms and emulsions, microelectromechanical systems, and biological systems. Letter grading.

C286. Applied Optics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 156A or 166A. Material selection in mechanical design, load and stress analysis. Deflection and stiffness. Failure due to static loading. Fatigue failure. Design for safety factors and reliability. Applications of failure prevention in design of power transmission shafting. Design project involving computer-aided design (CAD) and finite element analysis (FEA) modeling. Concurrently scheduled with course C183B. Letter grading.

C296A. Mechanical Design for Power Transmissions. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 156A or 166A. Types of fiber: single and multimode. Concurrently scheduled with course C183B. Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisite: course 156A or 166A. 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 dynamics of triple line. Presentation of various applications, including wetting, change of phase (boiling and condensation), forms and emulsions, microelectromechanical systems, and biological systems. Letter grading.

C296B. High-Temperature Mechanical Design. (4) Lecture, four hours; outside study, eight hours. Requisite: course C183B or equivalent. Revision of elasticity and stress, creep, thermal plasticity, flow rules, cyclic plasticity, viscoplasticity, creep, creep damage in cyclic loading. Damage mechanics: thermodynamics, ductile, creep, fatigue, and fatigue-creep interaction damage. Fracture mechanics: elastic- plastic analysis, J-integral, brittle fracture, ductile fracture, fatigue and creep crack propagation. Applications in design of high-temperature components such as turbine blades, pressure vessels, heat exchangers, connecting rods. Design project involving CAD and FEM modeling. Letter grading.

C297A. Rapid Prototyping and Manufacturing. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisite: knowledge in manufacturing equivalent to course 183A and CAD capability. Rapid prototyping (RP), solid freeform fabrication, or additive manufacturing has emerged as popular manufacturing technology to accelerate product creation in last two decades. Machine for layered manufacturing builds parts directly from CAD models. This novel manufacturing technology has emerged as popular manufacturing technology to produce functional and appearance components. Letter grading.

C297L. Nanoscale Fabrication, Characterization, and Biodetection Laboratory. (4) Lecture, two hours; laboratory, three hours; outside study, seven hours. Multidisciplinary course that introduces laboratory techniques of nanoscale fabrication, characterization, and biodetection. Basic considerations, and bio- logical principles related to these techniques, top- down and bottom-up (self-assembled) nanofabrication, nanocharacterization (AEM, SEM, etc.), and optical and elastomicroanalysis. Students are encouraged to create their own ideas in self-designed experiments. Concurrently scheduled with course C187L. Letter grading.

C298A. Compliant Mechanism Design. (4) (Formerly numbered 298A.) Lecture; four hours, outside study, eight hours. Requisite: linear algebra. Advanced compliant mechanism synthesis approaches, modeling techniques, and optimization tools. Fundamen- tals of compliant mechanics and design for con- straint-based design, projective geometry, screw theory kinematics, and freedom and constraint topolo- gies. Applications: precision motion stages, general purpose spindles, microarchitectures, MEMS, optical mounts, and nanoscale positioning systems. Hands-on exercises include build- ing and testing simple devices, lab, and FEA simulations, and term project. Concurrently scheduled with course C162B. Letter grading.

C299A. Radio Frequency Identification Systems: Analysis, Design, and Applications. (4) Lecture, four hours; outside study, eight hours. Requisite: course 156A or equivalent. Field of radio frequency identification (RFID), including basics of RFID, how RFID systems function, design and analysis of RFID applications to fields such as supply chain, manufacturing, retail, and homeland security. Letter grading.

C299A. Mechanical Design for Power Transmissions. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 156A or 166A. Material selection in mechanical design, load and stress analysis. Deflection and stiffness. Failure due to static loading. Fatigue failure. Design for safety factors and reliability. Applications of failure prevention in design of power transmission shafting. Design project involving computer-aided design (CAD) and finite element analysis (FEA) modeling. Concurrently scheduled with course C183B. Letter grading.

295A. Radio Frequency Identification Systems: Analysis, Design, and Applications. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 156A or equivalent. Field of radio frequency identification (RFID), including basics of RFID, how RFID systems function, design and analysis of RFID applications to fields such as supply chain, manufacturing, retail, and homeland security. Letter grading.

295A. Radio Frequency Identification Systems: Analysis, Design, and Applications. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 156A or equivalent. Field of radio frequency identification (RFID), including basics of RFID, how RFID systems function, design and analysis of RFID applications to fields such as supply chain, manufacturing, retail, and homeland security. Letter grading.

296A. Mechanical Design for Power Transmissions. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 156A or equivalent. Field of radio frequency identification (RFID), including basics of RFID, how RFID systems function, design and analysis of RFID applications to fields such as supply chain, manufacturing, retail, and homeland security. Letter grading.
M297B. Material Processing in Manufacturing. (4) (Same as Materials Science M297B.) Lecture, four hours; outside study, eight hours. Enrolled requisite: course 183A. Thermodynamics, principles of material processing: phase equilibria and transitions, transport mechanisms of heat and mass, nucleation and growth of microstructure. Applications in casting/solidification, welding, consolidation, chemical vapor deposition, infiltration, composites. Letter grading.

M297C. Composites Manufacturing, (4) (Same as Materials Science M297C.) Lecture, four hours; outside study, eight hours. Requisites: course 166C, Materials Science 151. Matrix materials, fibers, fiber preforms, elements of processing, autoclave/compression molding, filament winding, pultrusion, resin transfer molding, automation, material removal and assembly, metal and ceramic matrix composites, quality assurance. 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 advanced 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 M297 and Electrical and Computer Engineering M248S.) Seminar, two hours; field trips, 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 on 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 with 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. Reading and preparation for MS comprehensive examination. S/U grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. 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
37-120 Center for Health Sciences Box 951736 Los Angeles, CA 90095-1736

Medicine 310-825-6056

Alan M. Fogelman, MD, Executive Chair Jose Escarce, MD, PhD, Executive Vice Chair, Academic Affairs
Robert K. Oye, MD, Executive Vice Chair, Clinical Services
Dennis J. Slamon, MD, Executive Vice Chair, Research

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 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.

Instruction 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 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. 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 research, through 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

M160A. Health Outreach and Education for At-Risk Populations. (4) (Same as Public Health M160A) Lecture, four hours; possible field observations. First in a series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, with field visits. P/NP or letter grading.

M160B. Health Outreach and Education for At-Risk Populations. (4) (Same as Public Health M160B) Lecture, two hours; discussion, two hours. Requisite: course M160A. Second in series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, discussion groups, and field activities including health education. P/NP or letter grading.

160C. Health Outreach and Education to At-Risk Populations. (4) Seminar, six to eight hours. Requisites: courses M160A, M160B. Processes involved with designing, delivering, and assessing community health education programs, under supervision of professional staff. P/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 therapeutic approaches originating from traditional Chinese medicine. Study of theoretical underpinnings of integrative medicine and traditional Chinese medicine, management of personal well-being through experiential learning of various therapeutic modalities, and evidence-based research and clinical applications of integrative medicine. Topics include integrative East-West medicine and its role in prevention and health optimization, herbs, diet, and lifestyle; illness; pain management using acupuncture, acupressure, massage, and other self-help techniques; integrative medicine research and evidence-based modalities; chronic stress and implications for stress, pain, and sleep; neuromodulation; and maintaining healthy immune system. 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 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. 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.

MEDICINE
Graduate Courses


M215A. Directed Research in Medicine. (2 to 8) (Same as Pathology M215 and Pediatrics M215.) Lecture, two and one half hours; preparation, two hours. Examination of tools to help students prevent, detect, and intervene in infectious diseases. Interdisciplinary sessions are 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 each) (Same as Biomathematics M260A-M260B.) Lecture, four hours. Recommended preparation: MD, PhD, or dental degree. Requisites: Biomathematics 170A, 265A. Course M260A is requisite to M260B. Recommended 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 Biomathematics 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 Biomathematics M261.) Lecture, two and one half 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 humans, conflicts of interest, Institutional Review Board (IRB), and related topics. S/U or letter grading.

M263. Clinical Pharmacology. (2) (Same as Biomathematics M263 and Psychiatry M263.) Lecture, two hours. Preparation: completion of professional health sciences degree (MD, DDS, DNCs, or PhD). Overview of principles of clinical pharmacology, especially as they relate to clinical and translational medicine and to advances in contemporary medicine such as targeting, gene therapy, and genomics. Letter grading.

M270C. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Bioengineering M296A and Computer Science M296A.) Lecture, four hours; outside study, eight hours. Requisites: Electrical Engineering 141 or 142 or Mechanical and Aerospace Engineering 171A. Development of dynamic systems modeling methodology for physiological, biomedical, pharmacological, chemical, and related systems. Control system, multicompartamental, noncompartamental, and input/output 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 M296B, Biomathematics M270, and Computer Science M296B.) Lecture, four hours; outside study, eight hours. Requisites: course M270C or Bioengineering CM296 or Biomathematics M270D. Exploration 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 experimental design via applications in physiology and pharmacology. Letter grading.


M290C. Immunological and Molecular Genetics. (2) (Same as Microbiology M290C.) Lecture, two hours; discussion, one hour. Syllabus supplements topics covered in classroom. S/U grading.

M290D. Advanced Immunology. (2) (Same as Microbiology M290D.) Lecture, two hours; discussion, one hour. Study of current knowledge about diseases prevalent in tropical areas of the world. Major emphasis on infectious diseases, with coverage of problems in nutrition and exotic noninfectious diseases. Syllabus supplements topics covered in classroom. S/U grading.


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, biotechnology 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 experiences, analyzing data, and interpreting results
- Execution of database searches for scientific literature and bioinformatics data related to investigative 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

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 Statistics 13, or 31A, 31B, 32A, and Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

Policies

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 lower 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 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 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.

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.

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 the following groups: (a) Microbiology, Immunology, and Molecular Genetics 103AL and 103BL, or (b) 109AL and 109BL, (3) Three 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, CM122, CM124, Ecology and Evolutionary Biology 121, C135, 137, 162, Epidemiology 100, Human Genetics C144, Microbiology, Immunology, and Molecular Genetics 122, 174, C185B, 191H, 198C, 199, Molecular, Cell, and Developmental Biology 100, 104AL, 138, M140, C141, 143, 144, C150, 153B, 165A, 168, 172, M175A, M175B, M175C, 187AL, Neuroscience M101A, M101B, M101C, Physiological Science 121, 124, 125, 128, Statistics 100A, 100B.

No more than 4 units of course 198C or 199 may be applied toward the general electives under Plan I.

Plan II requires submission and approval of an admissions application. Detailed information may be obtained at the Student Affairs Office, 1602B Molecular Sciences.

Policies

Each major course must be taken for a letter grade of C- or better, and students must have a minimum overall grade-point average of 2.0 or better in the major. Students receiving a grade of D or below in two major courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Honors Program

Overall grade-point averages of 3.2 and 3.5 in the preparation for the major and major respectively are required to apply for departmental honors. In addition students must have junior standing and the sponsorship of a faculty adviser from the department. The core of the program consists of Microbiology, Immunology, and Molecular Genetics 198A, 198B, and 198C research, culminating in a thesis. If the thesis is accepted by the honors committee and students complete all major requirements with a GPA of at least 3.5, they are awarded the bachelor’s degree with departmental honors. The department also offers an honors seminar course each winter quarter that is required for the honors program. For more information, contact the Student Affairs Office, 1602B Molecular Sciences.
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 microbiology, microbial genetics, microbial pathogenesis, and recombinant DNA research. Students are prepared for creative research careers in all of these fields. The objective of the department is to provide breadth in microbiology, immunology, and molecular genetics at the undergraduate level and depth and training in independent study and research for graduate students.

Applicants interested in studying with faculty in the department are encouraged to apply to an appropriate home area in Graduate Programs in Bioscience.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Microbiology, Immunology, and Molecular Genetics

Lower-Division Courses

5. Science of Memory and Learning. (4) Lecture, seven hours of laboratory per week. Prerequisites: five units of credit in biology. Corequisites: biology 185. Designed to provide students with an understanding of the processes that underlie memory formation and memory retrieval. Offered in summer and winter. P/NP grading.

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, prototozoans, algae, fungi); their significance as model systems for understanding fundamental cellular processes, and their role in human affairs. P/NP or letter grading.

7. Medical Microbiology for Nursing Students. (4) Lecture, three hours; discussion, one hour. Prerequisites: Life Sciences 30A or 30B or Math 5. Introduction to medical microbiology, their role in development of human immune response, and presentation of symptoms and diseases caused by microbial infections. Letter grading.

15. Nanoscience Microscopy Laboratory. Lecture, 26 hours; laboratory, nine hours. Recommended prerequisites: high school biology, chemistry, and physics. Designed as one-week summer course for high school students. Exploratory introduction to three key microscopy techniques for nanoscience research: fluorescence microscopy, scanning probe microscopy, and electron microscopy. Nanoscience is umbrella term that encompasses one diverse interdisciplinary branch of modern science research, including molecular sciences, biotechnology, material science, chemistry, biochemistry, and various fields of engineering. Offered in summer only. P/NP grading.

19. Flat Lux Freshman Seminars. (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 at UCLA. P/NP grading.

98. Honors Questions in Microbiology. 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. P/NP or letter grading.

98HC. Honors Contracts. (3) Tutorial, three hours; discussion, one hour. 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

100L. Microbiology Laboratory for Professional Students. (3) Lecture, three hours; laboratory, four hours. Prerequisites: Life Sciences 3 and 4, or 7A, 7B, and 23L, with grades of C- or better. Recommended corequisite: course 101. Limited to nonmajors. Experimental techniques of microbiology, with emphasis on cultivation and characterization of bacteria. Laboratory exercises include light microscopy, quantitative techniques, and identification methods. Students learn to work effectively in groups to perform experiments, record observations, and analyze results. Letter grading.

101. Introductory Microbiology. (4) Lecture, three hours; discussion, one hour. Prerequisites: 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. Introductory Virology. (4) Lecture, three hours; discussion, one hour. Prerequisites: 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 grades.

103AL. Research Immersion Laboratory in Virology. (4) Lecture, two and one half hours; laboratory, eight hours. Prerequisites: course 101, Life Sciences 3, or 13, or 23L, or 5A. Corequisite or prerequisite: course 103L. Course 103AL is required for course 103BL. Limited to Microbiology, Immunology, and Molecular Genetics majors and minors. Research-oriented laboratory experience designed to promote discovery of novel microorganisms. Working in teams, students conduct experiments designed to inorporate 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.

103BL. Advanced Research Analysis in Virology. (4) Laboratory, six hours. Prerequisites: course 103AL, and Life Sciences 40 or Statistics 13. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors. Designed to provide students authentic, discovery-based research experience in life sciences. Investigation 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 students are expected to produce PowerPoint slides and formally present results to class. Production of team poster and final report describing entire research project required. Letter grading.

105. Biological Microscopy. (4) Lecture, four hours; laboratory, three hours (five weeks only). Prerequisite or corequisite: physics 1C or 5B or 6C. Introduction to modern microscopy technologies used in biochemistry, microbiology, and nano research. Basic image formation principles of microscopy, methods for sample preparation, imaging, data acquisition, and three-dimensional reconstruction and visualization. Fluorescence, confocal, and super-resolution light microscopy; transmission electron microscopy, electron tomography, and three-dimensional cryo-electron microscopy; and atomic force and other scanning probe microscopy modalities. Practical experience in research provided through five carefully designed electron microscopy laboratory modules. P/NP or letter grading.

106. Molecular and Genetic Basis of Bacterial Infections. (4) Lecture, two and one half hours; discussion, one hour. Prerequisites: course 185A, Chemistry 153A. Viral pathogens that infect mammals. Viral entry into and replication in host cells. Host response and host-virus interaction. Pathogenic manifestations exhibited during viral infections. Letter grading.

109AL. Research Immersion Laboratory in Microbiology. (4) Lecture, three hours; laboratory, eight hours. Prerequisites: course 101, Life Sciences 3, 4, and 23L, or 7A, 7B, and 23L. Course 109AL is enforced prerequisite 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 microorganisms. Working in teams, students conduct experiments 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 Microbiology. (4) Laboratory, six hours. Prerequisites: course 109AL, Life Sciences 40 or Statistics 13. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors. Designed to provide students authentic, discovery-based research experience in life sciences. Investigation 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 students are expected to produce PowerPoint slides and formally present results to class. Production of team poster and final report describing entire research project required. Letter grading.
122. Mouse Molecular Genetics. (2) Seminar, two hours. Requisite: 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, being highly 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 functional genomics, cancer biology, stem cell biology, development, evolutionary biology, and genetic dissection of diseases. Concurrently scheduled with course C222. P/NP or letter grading.

123. Advanced Annotation and Comparative Genomics. (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 cellular pathways 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 scientific journals. Joint Genomics Institute. Undergraduate Research in Microbial Genome Annotation education 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 of biomedical researcher to society, research, data management, mentorship, grant applications, and publications. Responsibilities to peers, sponsoring institutions, and society. Conflicts of interest, disclosure of dual subject welfare, human subject protection, and areas in which investigational goals and certain societal values may conflict. Concurrently scheduled with course C234. P/NP grading.

CM156. Human Genetics and Genomics. (5) Same as Molecular, Cell, and Developmental Biology CM156.) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, and 7C. Application of concepts in human evolutions, with emphasis on genomics, family studies, positional cloning, Mendelian and common diseases, cancer genetics, animal models, cytogenetics, pharmacogenetics, proteomics, and genotyping. Lectures and readings in literature, with focus on current questions in fields of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM256. Letter grading.

158. Microbial Genomics. (4) Lecture, three hours; discussion, one hour. Requisites: course 101, Chemistry 153A, Evolution, biodiversity, and sequencing of genomes; bacterial and viral genome biology; genomics; gene knockout; genomics of antibiotic resistance; proteomics. Guest lecturers from department and related departments who discuss key papers with focus on their area of interest. Letter grading.

168. Molecular Parasitology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3 and 4, or 7A, 7B, and 23L. Survey of parasitic protozoa not only as parasites that interact with host, but also as model systems for analysis of basic biological phenomena such as gene regulation, molecular development, cell-cell interactions, molecular evolution, and novel biochemical pathways. Letter grading.

170. Cell and Gene Therapy. (4) Lecture, three and one-half hours; discussion, one hour. Requisites: Chemistry 153A, Life Sciences 107. State-of-art study of stem cells and gene therapy, and approaches to treat congenital/genetic defects, diseases, or injuries in humans. Review of current knowledge of human stem cells and viral and non-viral gene delivery strategies, and how they can be safely evaluated in animal models of disease. Introduction to ethical and legal issues related to cell and gene therapy as well as how to translate therapies into practice including aspects of cell and gene therapy intellectual property, regulatory, and Food and Drug Administration considerations. Inclusion of innovative mock company team pitches to venture capitalists to learn how to raise capital for their new ventures based on what they have learned. Letter grading.

174. Advanced Topics in Molecular Parasitology. (2) Lecture, two hours. Requisites: course 168, Life Sciences 3 and 4 or 7A, 7B, and 23L. Examination of recent advances in molecular biology of parasites and host/parasite relationship. Specific topics include par- alytic cutaneous leishmaniasis, Trypanosoma cruzi, Chagas disease, Requisite: Life Sciences 7A, 7B, 7C, 30A, 30B. Introduction to key biological regulatory circuit motifs and systems bi- ology concepts that are critical to understanding how cellular responses are controlled. Letter grading.

180A. Scientific Analysis and Communication I. (2) Seminar, two hours. Enforced corequisite: course 180A, or Life Sciences 40 or Statistics 13.1. Students classify scientific ar- ticles and give presentations, introducing research topics using relevant primary literature. Critical as- pects of research process, including record keeping, ethics, laboratory techniques, mechanics of scientific writing, diverse approaches to research, and project responsibilities and ownership. Acquisition of in-depth and broad knowledge about student re- search projects, improvement of oral and written com- munication skills, and full appreciation of process of doing good science and becoming skilled re- searchers. Letter grading.

180B. Scientific Analysis and Communication II. (2) Seminar, two hours. Enforced corequisite: course 180A, or Life Sciences 40 or Statistics 13.1. Enforced coreq- uisite: course 198B or 1988B. Students give presenta- tions similar to laboratory meeting or research sym- pousium talk in which speakers discuss project goals, methodological approaches, results, and conclusions. How to write research papers as well as prepare and present scientific posters. Production of deliverables that demonstrate understanding of concepts and creation of sense of pride for work accomplished as skilled re- searchers. Letter grading.

180C. Scientific Analysis and Communication III. (2) Seminar, two hours. Enforced corequisite: course 189, or Life Sciences 40 or Statistics 13. Enforced coreq- uisite: course 189 or 1988B. Students give presenta- tions similar to laboratory meeting or research sym- pousium talk in which speakers discuss project goals, methodological approaches, results, and conclusions. How to write research papers as well as prepare and present scientific posters. Production of deliverables that demonstrate understanding of concepts and creation of sense of pride for work accomplished as skilled re- searchers. Letter grading.

C185B. Advanced Immunology and Applications. (2) Seminar, three hours. Enforced corequisite: course 185A. Students classify scientific ar- ticles and give presentations, introducing research topics using relevant primary literature. Critical as- pects of research process, including record keeping, ethics, laboratory techniques, mechanics of scientific writing, diverse approaches to research, and project responsibilities and ownership. Acquisition of in-depth and broad knowledge about student re- search projects, improvement of oral and written com- munication skills, and full appreciation of process of doing good science and becoming skilled re- searchers. Letter grading.

192H. Honors Research Seminars: Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Requisite or corequisite: course 198A or 198B or 198C. Limited to senior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepara- tion of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

192SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Requisites: course 188SB or 198SB. Individual study for USIE facilitators. Individual contract with faculty mentor required. May not be repeated. Letter grading.

193. Undergraduate Practicum in Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Designed as adjunct to undergraduate lecture course or discussion 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 stu- dents. Honors content noted on transcript. P/NP or letter grading.

194H. 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 lecture course instructor to explore topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for a maximum of 4 units. Individual contract re- quired. Honors content noted on transcript. Letter grading.

199H. Honors Research Seminars: Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Requisite or corequisite: course 198A or 198B or 198C. Limited to senior microbiology, immu- nology, and molecular genetics honors program stu- dents. Discussion of current research literature, with focus on research topics. Advises that students are working on as part of departmental honors requirements. One- hour presentation of student thesis research and cur- rent literature associated with it required. May be re- peated for credit. Letter grading.

192. Undergraduate Practicum in Microbiology, Im- munology, and Molecular Genetics. (2) Seminar, six hours. Limited to junior/senior departmental majors. Training and supervised practicum for advanced un- dergraduate students. Students assist in preparation of materials and development of innovative programs under guidance of faculty members in small course settings. Consult Student Affairs Office for further in- formation. Not be applied toward course require- ments for departmental majors. May be repeated for credit. P/NP or letter grading.

193A. Journal Club Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature in microbi- ology, immunology, and molecular genetics field. P/NP grading.

193B. Journal Club Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature in microbi- ology, immunology, and molecular genetics field. P/NP grading.

194A. Research Group Seminars: Microbiology, Im- munology, and Molecular Genetics. (1) Seminar, one hour. Designed for undergraduate students who are part of research group in department faculty labo- ratory. Discussion of research methods and current lit- erature in field or of research of faculty members or students. May be repeated for credit. P/NP grading.
194B. Research Group Seminars: UC LEADS and NIH/MARC. (2) Seminar, two hours. Limited to students in UC LEADS and NIH/MARC programs. Analysis, review, and critique of current papers in biomedical sciences disciplines, using skills necessary for effective oral and written presentation. Use of software such as PowerPoint for oral presentations. May be repeated for credit. Letter grading.

196A. Research Apprenticeship I in Microbiology, Immunology, and Molecular Genetics. (4) Tutorial, 12 hours. Required: Life Sciences 3, 4, and 23L, or 7A, 7B, and 23L, 3.0 major and/or major grade-point average, and at least one term of prior experience in research. Assigned each fall in which 196A research can be conducted. Enforced corequisite: course 180A. Course 196A is enforced requisite to 196B. Designed for undergraduate students who are interested in pursuing inquiry-based and hypothesis-driven research experience in laboratory of departmental faculty mentor. 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, identify experiments to address hypothesis, perform experiments, analyze results. How to communicate research information from experimental activities into laboratory notebooks and to write research proposals. Letter grading.

196B. Research Apprenticeship II in Microbiology, Immunology, and Molecular Genetics. (4) Tutorial of 12 hours. Enforced requisite: course 196A. Enforced corequisite: course 180B. Expansion of scope, increasing depth, and implementation of independence in research. Assigned each fall in which 196A research can be conducted. Course 196A to facilitate learning and implementation of goals stated previously. Technical aspects vary depending on specific laboratory; however, all students use scientific method learned in course 196A and continue same experimental scope proposed, but with additional degree of independence in technical and intellectual aspects of research. Letter grading.

197. Individual Studies in Microbiology, Immunology, and Molecular Genetics. (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.

198A-198B-198C. Honors Research in Microbiology, Immunology, and Molecular Genetics. (4–4–4) Tutorial, 12 hours. Course 198A is requisite to 198B, which is requisite to 198C. Limited to junior/senior microbiology, immunology, and molecular genetics honors students. Directed individual research. Directed individual research for departmental honors; students must have faculty sponsor. Progress report must be submitted to faculty sponsor at end of each of first two terms, with honors thesis submitted at end of final term. Maximum of 8 units may be applied toward major, with balance applied toward BS degree requirements. Individual contract required. Letter grading.

199. Directed Research in Microbiology, Immunology, and Molecular Genetics. (2 to 4) Tutorial, 12 hours. Preparation: minimum 2.5 grade-point average in major and major. Supervised individual research project under guidance of departmental faculty mentor. Copy of report describing research must be filed with Student Affairs Office by end of term. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

C222. Mouse Molecular Genetics. (2) Seminar, two hours. Required: 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 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 functional genomics, complex traits, stem cell biology, developmental biology, epigenetics, and genetic dissection of diseases. Concurrently scheduled with course C122. S/U or letter grading.

M229. Molecular Mechanisms of Host/Pathogen Interaction. (4) Same as Pathology M229. Lecture, two hours; discussion, two hours. Enforced requisite: Molecular Biology 254A through 254D. Molecular mechanisms of microbial interactions with eukaryotic host cells that result in disease or pathogen survival. Topics include pathogenesis of common viruses, bacteria, fungi, parasites, pathogenesis of tumor-of-mixed cellular damage, and immune suppression of microbial tissue damage. Letter grading.

C234. Ethics and Accountability in Biomedical Research. (4) Seminar, to be arranged. Required: course 196B. Directed toward graduate students and undergraduates who have credit for life sciences or biomedical individual studies 198 course. Responsibilities and ethical conduct of investigators in graduate students, data management, mentorship, grant applications, and publications. Responsibilities to peers, sponsoring institutions, and society. Conflicts of interest, disclosure, animal subject welfare, human subject protection, and areas in which investigational goals and certain societal values may conflict. Concurrently scheduled with course C134. S/U grading.

CM256. Human Genetics and Genomics. (5) Same as Molecular, Cell, and Developmental Biology CM256. Lecture, discussion, two hours. Required: Life Sciences 3, 4, and 23L, or 7A, 7B, and 7C. Application of genetic principles in human populations, with emphasis on genomics, family studies, population biology, human and common diseases, cancer genetics, animal models, cytogenetics, pharmacogenetics, population genetics, and genetic counseling. Lectures and readings in literature, with focus on current questions in fields of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM156. Independent research project required of graduate students. S/U or letter grading.

261. Molecular and Cellular Immunology. (4) Lecture, four hours. Strongly recommended requisite: Molecular Biology 254A through 254D. Limited to graduate students. Comprehensive course for graduate students and selected undergraduate students covering fundamentals and recent advances in molecular and cellular immunology. Oral presentation required. S/U or letter grading.

262A-262B-262C. Advanced Current Topics in Immunology of Cancer. (2–2–2) Seminar, two hours. Designed for graduate students (or undergraduate students with consent of instructor). Review of recent literature in immunology, biology, and biochemistry of cancer, with emphasis on fundamental studies involving cell-mediated immunity, humoral response, tumor specific antigens, and new techniques. Discussion of reports on scientific meetings. Each course may be repeated for credit. S/U or letter grading.


C185B. Advanced Immunology and Applications. (2) Lecture, 90 minutes. Preparation: one course in immunology. Covers similarities and differences between host-microbe interactions to bacterial and viral infections, and balance required between immune and inflammatory responses. Discussion of various strategies to enhance our immune system against invasion by pathogens or cancer cells without triggering inflammatory and autoimmune diseases, including new cancer immunotherapies. Concurrently scheduled with course C185B. Letter grading.

296. Seminar: Research Topics in Microbiology, Immunology, and Molecular Genetics. (1 to 4) Seminar, two hours; research group meeting, one hour. Limited to departmental graduate students. Advanced study and analysis of current topics in microbiology, immunology, and molecular genetics. 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. 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. Preparation for Teaching Microbiology in Higher Education I. (1) Seminar, two hours. Designed for graduate students. Study of problems and methodologies in teaching microbiology, including workshops, seminars, apprentice teaching, and peer observation. S/U grading.

495B. Preparation for Teaching Microbiology in Higher Education II. (1) Seminar, one hour. Requisite or corequisite: course 495A. Designed for first-time teaching assistants and to be taken in term in which they teach. In odd weeks, discussion of developments in student classes, with instruction on digital pedagogy and evaluation of student teaching. In even weeks, participation in online discussion forum case studies. S/U grading.


Military Science – Army ROTC

College of Letters and Science

120S Student Activities Center Box 951809
Los Angeles, CA 90095-1609

Military Science – Army ROTC
310-825-7381, 825-7384
Army ROTC e-mail

Kevin E. Toms, MA, Lieutenant Colonel, Chair

Faculty Roster

Professor
Kevin E. Toms, MA, Lieutenant Colonel

Adjunct Assistant Professors
Eric T. Aldred, MS, Captain
Lee W. Anderson, BS, Captain
Christopher Z. Barra, MBA, MA, Colonel
Shavez Freeman, MS, Captain
Jonathan Garrido, BA, First Lieutenant
Louis R. Kete, BA, First Lieutenant
William N. Ritch, MA, Major
Anthony Tavantzis, BA, First Lieutenant

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 An-
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 and sophomores. The Army and Navy/Marine Corps also offer a two-year program for current and transfer students. All have leadership laboratories that teach leadership and management skills. All commissions are reserve commissions. Active duty obligation following commissioning varies depending on branch of service and designated career field or occupational specialty. The Army offers both active- and reserve-duty opportunities directly after commissioning.

**Scholarships**

ROTC scholarships are awarded on a competitive basis to U.S. citizens regardless of parents’ income. Scholarships cover full tuition or housing (on or off campus) up to $10,000, a $1,200 allowance for books and fees, and a tax-free monetary allowance of $420 per month during the academic year. Applications for four-year scholarships may be obtained online. Completed four-year applications should be submitted by January 10 of the year preceding college matriculation. Two- and three-year scholarship applications may be obtained from the Military Science Department by e-mail or by calling 310-825-7381, and are considered when received.

**Army ROTC Program**

Army ROTC is a program that enables students to become officers in the U.S. Army, Army Reserves, or Army National Guard while earning a college degree. The curriculum supplements students’ academic majors by offering elective courses ranging from leadership and management to military law. Courses are augmented with leadership laboratories that stress practical skills such as first aid, land navigation, survival techniques, rappelling, military tactics, and scenario-driven leadership reaction courses. Non-ROTC students may enroll in many of the military science courses without enrolling in the ROTC program.

Additionally, students who decide to become Army officers can receive summer training in military parachuting (Airborne School at Fort Benning, GA), helicopter operations that include rappelling from a hovering helicopter (Air Assault School in Hawaii), and mountain trekking operations (Northern Warfare School in Alaska).

Scholarships are available for two, three, and four years of academic study and are awarded on a competitive basis. Army scholarships pay for full tuition and mandatory fees or housing, up to $10,000, and provide a stipend of $4,200 per year and a $1,200 book allowance. Non-scholarship, contracted ROTC cadets also receive the stipend of $4,200 per year. Students in the program also compete for over $50,000 in merit-based scholarships provided annually by various private organizations that support the Army ROTC program. Additionally, students may work part-time as officer trainees in local Army Reserves or National Guard units through the simultaneous membership program (SMP). Contracted students can fly free on military aircraft within the continental U.S. on a space-available basis.

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 Reserves 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-credit 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 six 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 similar 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 between their Military Science III and IV years. Cadets receive an allowance for travel expenses and are paid for attendance.

The active duty obligation for those students selected to enter the Reserves or National Guard is for initial training, and only for a period of several months. The active duty obligation for those students commissioned into the Active Army is three years. Students who accept ROTC scholarships and enter the Active Army serve one additional year. ROTC students wishing to obtain certain advanced degrees may be granted a delay in reporting to their initial assignment.

**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 obligations. 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 Officerhood. (2) Lecture, one hour. Introduction to issues and competencies that are central to commissioned officer’s responsibilities. Framework established to understand officerhood, leadership, military customs, briefings, and life skills such as physical fitness, nutrition, and time management. P/NC or letter grading.

12. Basic Military Leadership. (2) Lecture, one hour. Requisite: 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/NC or letter grading.
Molecular and Medical Pharmacology

David Geffen School of Medicine
23-120 Center for Health Sciences
Box 951735
Los Angeles, CA 90095-1735

Molecular and Medical Pharmacology
310-825-0390

Department e-mail

Molecular and Medical Pharmacology / 639

Molecular and Medical Pharmacology

David Geffen School of Medicine

23-120 Center for Health Sciences
Box 951735
Los Angeles, CA 90095-1735

Molecular and Medical Pharmacology
310-825-0390

Department e-mail

Stephen C. Cannon, MD, PhD, Interim Chair

Samson A. Chow, PhD, Vice Chair
Johannes Czernin, MD, Vice Chair
Arion F. Hadjioannou, PhD, Vice Chair
Harvey R. Herschman, PhD, Vice Chair
Caius G. Radu, MD, Vice Chair
R. Michael van Dam, PhD, Vice Chair

Faculty Roster

Professors

Steven J. Bensinger, VMD, PhD

Dale E. Bredesen, MD, in Residence
Gautam Chaudhuri, MD, PhD
Samson A. Chow, PhD
Timothy F. Cloughesy, MD
Johannes Czernin, MD
Magnus Dahlbom, PhD, in Residence
Timothy R. Donahue, MD
Steven M. Dubinett, MD
James S. Economou, MD, PhD
Frederick (Fritz) C. Eliber, MD
Thomas G. Graebner, PhD
Ming Guo, MD, PhD
Arion F. Hadjioannou, PhD
Jing Huang, PhD
Michael E. Jung, PhD
Daniel L. Kauflman, PhD
Donald B. Kohn, MD
Harley L. Kornblum, MD, PhD, in Residence
Paul A. Krosgstad, MD, PhD
Raphael D. Levine, PhD
Linda M. Liu, MD, MBA, PhD
Gerald S. Lipshutz, MD, in Residence
Roger S. Lo, MD, PhD
Edythe D. London, PhD, in Residence
(Thomas P. and Katherine K. Pike Professor of Addictive Studies)
John C. Mazzotti, MD, PhD
William P. Melega, PhD, in Residence
Robert M. Prins, PhD, in Residence
Caius G. Radu, MD
Sriniwas T. Reddy, PhD, in Residence
Antoni Ribas, MD
Oriam Shihirai, MD, PhD
Desmond Smith, MD, PhD
Hsian-Rong Tseung, PhD
R. Michael van Dam, PhD
Owen N. Witte, MD (Presidential Professor of Developmental Immunology)
Lily Wu, MD, PhD

Professors Emeriti

Jorge R. Barrio, PhD
Arthur K. Cho, PhD
Cameron B. Gundersen, PhD
Sherrel G. Howard, PhD
Sung-Cheng (Henry) Huang, DSc
Louis J. Ignarro, PhD (Nobel laureate, Jerome J. Belzer Professor Emeritus of Medical Research)
Richard W. Olsen, PhD
Michael E. Phelps, PhD (Norton Simon Professor Emeritus of Biophysics)
Nagichettai Satyamurthy, PhD
Heinrich R. Schelbert, MD, PhD
Ren Sun, PhD
Anna M. Wu, PhD

Associate Professors

Huiying Li, PhD
Jennifer M. Murphy, PhD
David A. Nathanson, PhD
Ting-Ting Wu, PhD, in Residence

Assistant Professors

Peter M. Clark, PhD
Ajit S. Divakaruni, PhD
Olututayo Ikotun, PhD
Marc Liesa-Roig, PhD, in Residence
Hans David S. Ullmer, MD, PhD, in Residence

Adjunct Professors

Robert D. Damoiseaux, PhD
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 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.

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

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

194. Group Seminars and Discussions: Cross-Disciplinary Scholars in Science and Technology Project. (4) Seminar, two hours; discussion, two hours. Limited to Cross-Disciplinary Scholars in Science and Technology (CSST) students. Communication and collaboration skills, specifically in interdisciplinary settings and introduction to research project design and proposal process. Students submit written CSST project proposal and give oral presentations of scientific proposals. May be repeated for credit. Letter grading.

195. Directed Research in Molecular and Medical Pharmacology. (2 to 8) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Special studies in pharmacology, including either reading assignments or laboratory work or both, designed for proper training of students. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

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 of Biology. (4) (Same as Chemistry CM205A) Lecture, three hours; discussion, one hour. Introduction to chemical biology. Topics include computational chemical biology, utility of synthesis in biochemical research, peptidomics, designed reagents for cellular imaging, natural product biosynthesis, protein engineering and directed evolution, cell biology of metal ions, imaging metal ions in cells, metal-containing drugs. Letter grading.

M205B. Issues on Chemistry/Biology Interface. (2) (Same as Chemistry CM205B) Seminar, one hour. Required course M205A. Selected talks and papers presented by students on faculty faculty on solving problems and utilizing tools in chemistry and molecular biology on chemistry/biology interface (CBI). S/U grading.

237. Research Frontiers in Cellular and Molecular Pharmacology. (6) Lecture, six hours; laboratory, five hours total. Detailed examination of principles of pharmacology and mechanisms of drug action on organ systems, tissue, cellular, and molecular levels, with emphasis on receptors, receptor/effector coupling, neurotransmitters, cardiovascular pharmacology, autonomic and central nervous system pharmacology. Letter grading.

M248. Introduction to Biological Imaging. (4) (Same as Bioengineering M248 and Physics and Biology in Medicine M248) Lecture, three hours; laboratory, one hour; outside study, seven hours. Exploration of role of biological 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.


M257. Introduction to Toxicology. (4) (Same as Pathology M257) Required course M241. Biochemical and systemic toxicology, basic mechanisms of toxicity, and interaction of toxic agents with specific organ systems. S/U or letter grading.

M258. Pathologic Changes in Toxicology. (4) (Same as Pathology M258) Designed to give students experience in learning normal histology of tissues which are near targets of toxin and the range of pathologic changes that occur in these tissues (liver, bladder, lung, kidney, nervous system, and vascular system). S/U or letter grading.

286. Business of Science: Exploring Entrepreneurship Seminar. (1 Seminar, one hour. Limited to graduate students. Further exploration of topics discussed in course 287, allowing students to interact with faculty and bring their individual research to table. Past and present students encouraged to enroll. S/U grading.

287. Business of Science. (2) Lecture, two hours. Designed for graduate students. (undergraduate students may enroll with consent of instructor). Introduction to principles of business and entrepreneurship in technology sectors. Basic business skills taught to effectively perform in commercial environment and understanding the environment of business ventures. Pre-requisites: course 286 and/or successful presentation by and questioning of successful technology entrepreneurs, identifying and evaluating new venture opportunities, development of financing, and entry and exit strategies. S/U or letter grading.
Graduate Major

Molecular Biology MS, PhD

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in Announcements, 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 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

M202. Advanced Topics in Cryogenic Electron Microscopy. (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 reconstruction, electron crystallography, and microcircular electron diffraction. Letter grading.

235. Rigor and Reproducibility. (2) Lecture, one hour; discussion, one hour. Two cornerstones of science advancement are rigor in designing and performing scientific research and ability to reproduce biomedical research 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 validates original results and readiness to progress to next phase of research. Scientific rigor is strict application 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 reproducibility in biomedical research. Discussion of issues raised by lecture, or case-studies, with training programs in pathophysiology, collaborative learning, and case studies. Topics include maintaining effective communication, aligning expectations, addressing equity and inclusion, fostering independence, cultivating ethical behavior, and articulating mentoring philosophy. S/U grading.

255. Scientific Writing. (3) Lecture, two hours; discussion, 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 principles 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.

298. Current Topics in Molecular Biology. (2) Student presentation/seminar, two hours. Students present oral critiques and participate in discussions on assigned topics. S/U grading.

300. Entering Mentoring Training Program. (1) Seminar/discussion, 90 minutes. Limited to 25 graduate students. Offers formal training on effective mentoring of undergraduate students in science laboratories. Priority 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 equity and inclusion, fostering independence, cultivating ethical behavior, and articulating mentoring philosophy. 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.

Molecular Biology / 641
Molecular, Cell, and Developmental Biology

College of Letters and Science
128 Hershey Hall
Box 957246
Los Angeles, CA 90095-7246

Molecular, Cell, and Developmental Biology
310-825-7109
Department e-mail
Amander T. Clark, PhD, Chair

Faculty Roster

Professors
John S. Adams, MD
Utpal Banerjee, PhD (Irving and Jean Stone Professor)
Jau-Nian Chen, PhD
Amander T. Clark, PhD
Daniel H. Cohn, PhD
Hilary A. Coller, PhD
Arjun Deb, MD
Robert B. Goldberg, PhD
Volker Hartenstein, PhD
Ann M. Hirsch, PhD
Steven E. Jacobsen, PhD
Amander T. Clark, PhD
D. Leanne Jones, PhD
Frank A. Laski, PhD
Chentao Lin, PhD
Jeffrey A. Long, PhD
William E. Lowry, PhD
Karen M. Lyons, PhD
Arjun Deb, MD
Robert B. Goldberg, PhD
Volker Hartenstein, PhD
Ann M. Hirsch, PhD
Steven E. Jacobsen, PhD
Tracy L. Johnson, PhD (Maria Rowena Ross Terp Professor of Cell Biology and Biochemistry)
D. Leanne Jones, PhD
Frank A. Laski, PhD
Chentao Lin, PhD
Jeffrey A. Long, PhD
William E. Lowry, PhD
Karen M. Lyons, PhD
Arjun Deb, MD
Robert B. Goldberg, PhD
Volker Hartenstein, PhD
Ann M. Hirsch, PhD
Steven E. Jacobsen, PhD
Amander T. Clark, PhD
D. Leanne Jones, PhD
Frank A. Laski, PhD
Chentao Lin, PhD
Jeffrey A. Long, PhD
William E. Lowry, PhD
Karen M. Lyons, PhD

Adjunct Professor
M. Luisa Iruela-Arispe, PhD

Adjunct Assistant Professors
Ira E. Clark, PhD
Nathanael Prunet, PhD

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 (MCDB) 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

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, 4AL, and 4BL, or 5A, 5B, and 5C.

Policies

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.

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, 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.

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 196B.

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, 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,
The core of the program consists of at least two upper-division development biology courses from Molecular, Cell, and Developmental Biology 138, C141, and 143 may be applied toward the major. A maximum of 4 units of approved seminar course credit may be applied toward the electives requirement. A maximum of 12 units of upper-division independent research courses from Molecular, Cell, and Developmental Biology 196A and 196B, 198A through 198D or 199A through 199D may be applied toward the major. Credit for 199 courses from other departments may not be applied to the major requirements.

Any single course may be applied toward only one category of the major, and must be taken for a letter grade. Students must receive a C or better grade in each required core course (Chemistry 153A, Life Sciences 107, Molecular, Cell, and Developmental Biology 138, 144, 165A), and must achieve a minimum overall grade-point average of 2.0 in the major. Students receiving grades below C in two required core 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 and application forms, students should contact the Student Affairs Office, 128 Hershey Hall, early in their educational planning. Completed applications should be submitted at least two weeks prior to the term in which students plan to begin the honors program.

Requirements
The core of the program consists of at least one approved undergraduate seminar course from Molecular, Cell, and Developmental Biology 191 and three research courses (12 units minimum) from 198A, 198B, and 198C, culminating in a thesis.

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, departmental honors, or highest departmental honors. At the discretion of the departmental honors committee, students who have (1) a GPA of 3.6 or better, both overall and in the major and (2) demonstrated exceptional accomplishment on the research thesis are awarded highest departmental honors.

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, 40, and Statistics 13, and (3) completing one course from Computer Science CM124, CM196, 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 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.

Graduate Major
Molecular, Cell, and Developmental Biology
MA, 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.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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. (8) 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 biomedical 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 stem cell research. Emphasis on genetic engineering history and foundations to generate discussion on its use in society. P/NP or letter grading.
70. Genetic Engineering and Society. (5) Lecture, four hours; discussion, one hour. Designed for nonmajors. Not open to students with credit for Honors College 70A or Life Sciences 3 or 4. Basic principles of genetic engineering. Overview of genetic engineering concepts and specific applications of genetic engineering to medicine, agriculture, law, and society. Emphasis on genetic engineering history and foundations to generate discussion on its use in society. P/NP or letter grading.
89H. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of genetic engineering 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. Human Stem Cells and Medicine. (5) Lecture, three and one half hours; discussion 90 minutes. Stem cells have potential to revolutionize way 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 facts. Exploration of use of stem cells in modern medicine 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 (supervised by 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, 23L, and 107. Course 104AL is requisite to Molecular, Cell, and Developmental Biology / 643
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 computational techniques. May not be repeated for credit. Letter grading.

104BL. Advanced Research Analysis in Developmental Biology. (4) Laboratory, six hours. Enforced requisites: course 104BL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Investigation to be primarily computational in nature whereby stu- dents will be taught mathematical and computational techniques 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 create PowerPoint slides and formally present results to class. Production of team poster and final report describing entire research project required. Letter grading.


135. Developmental Biology. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Development of understanding of fundamental molecular mechanisms and cellular and developmental biology of complex organism from single fertilized egg. Develop- ment of model organisms to understand 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 one another and communicate with one another to coordinate their ac- tivities in the embryo. Special emphasis on experimental approaches used to address these fundamental questions that determine how organized tissues and organs are formed and maintained throughout development. Letter grading.


C141. Molecular Basis of Plant Differentiation and Development. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Development of understanding of fundamental molecular mechanisms and cellular and developmental biology of plants. Emphasis on experiments that directly relate to information examined in lectures. 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 153B. Development of thorough understand- ing of the organization of cellular bi- ology both from perspective of known molecular mechanisms for regulating fundamental processes in cells and from theoretical applied perspective for using molecular mechanisms to special- ize emphasis on molecular mechanisms that relate to chromatin and histone modifications, DNA replication and repair, transposition, microRNAs, meiosis, and apoptosis. Study of techniques to use to understand embryonic development, reprogramming, cancer, and stem cells. Development of sophisticated understanding of DNA, RNA, and protein as well as capability of designing experiments to address funda- mentally important questions in biology and interpreting experi- mental data. Letter grading.

145. Appreciation and Critical Review of Biomedic- al Research. (5) Lecture, three hours; discussion, four hours. Corequisite: one course from 188A, 189C, 198B, 199C. Designed to offer students perspectives on how to appreciate independent research they are conducting in faculty mentor’s laboratory and gain understanding of how the understanding of molecular, cell, and developmental bi- ology. Through free-form Socratic learning method, class participation and interaction with classmates is encouraged, while understanding of process and value of peer evaluation, and improved verbal and written presentation skills. Letter grading.

146. Metabolism and Disease. (5) Lecture, three hours; discussion, one hour. Requisites: course 165A, and Life Sciences 3, 4, 23L, 7A, 7B, 7C, 107. Contribution of cellular metabolism to bi- ology of human diseases including cancer and dia- betes. Exploration of (1) major alterations of cellular metabolism in diseases; (2) tools and technologies that enable detailed characterization of metabolic alter- ations; (3) therapeutic targeting of metabolic vulnera- bilities; and (4) utility of altered cellular metabolism as diagnostically and therapeutically relevant knowledge. Letter grading.

C150. 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 in- sects, bacteria, and other—Earth’s ultimate symbi- ote. Just as science has revealed over time miscon- ceptions about how things work at molecular level, sci- entists and economists now recognize that beyond obvious need to grow above-ground biomass for fuel production, we must better understand how to make that biomass in sustainable manner. Introductory course in chemical ecology and how natural com- pounds affect gene expression. Emphasis on role of natural compounds in plant/microbe, plant/plant, and plant/herbivore interactions; synopsis of principles of plant defense mechanisms and responses to micro- bial infections. Concurrently scheduled with course C250. P/NP or letter grading.

150AL. Research Immersion Laboratory in Plant- Microbe Ecology. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: Life Sciences 7A, 7B, 7C, 23L, 107. Course 150AL is enforced requisite to course 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 plant-microbe interactions. Assemble of CM156. Human Genetics and Genomics. (5) Same as Microbiology CM156.) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, and 7. Application of genetic principles in human populations, with emphasis on genomics, family studies, positional cloning, Mendelian and common diseases, cancer genetics, animal models, cytogenetics, pharmacogenetics, population genetics, and genetic variation in literature, with focus on current questions in fields of med- ical and human genetics and methodologies appro- priate to answer such questions. Concurrently 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 new techniques in light microscopy which has provided us with invaluable tools in biological research. Study of light microscopy techniques currently used in research laboratories. Basics of light microscopy (image formation, magnifi- cation, resolution, contrast), widefield and fluores- cence microscopy, optical microscope, confocal, multi-photon, light-sheet and total internal reflection fluores- cence microscopy), and super-resolution microscopy. Laboratory sessions include setting up and using ultramicroscope-based microscope and live cell demonstrations on brightfield/epifluorescence, con- focal, light-sheet and super-resolution microscopes. 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 100. Molecular basis of cellular structure and function, from function of individual cellular organelle, as well as interaction of cells with extracellular environment and with other cells. Material presented in context of experimental questions and answers to incorporate concept of scientific method and recent advances in cell biology re- search. Exposure in discussions to recent scientific ar- ticles that directly relate to information examined in class. Letter grading.

165B. Molecular Biology of Cell Nucleus. (5) Lecture, three hours; discussion, two hours. Requisite: course 165A. Continuation of course 165A. Molecular biology of eukaryotic cell nucleus, with focus on struc- ture, organization, replication, and control of nuclear eukaryo- t, genome; eukaryotic gene expression, including tran- scription, translation, and transport; cell cycle and cancer. Study 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 literature that directly re- lates to information examined in lectures. Letter grading.

166. Stem Cell Biology. (5) Lecture, three hours; dis- cussion, 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 stem cell biology and embryonic stem cell research. Exploration of various model organisms as examples of how model organisms have helped to discover founda- mental principles in stem cell biology. How advances in cell and molecular biology and tissue engineering can be applied to use of stem cells in regenerative medicine. Ethical and legal issues related to stem cell research. Letter grading.


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 mole- cular biology of cells. Topics include foundational concepts in genomics and genetic approaches to study of function of individual genes, fundamental bioinformatics algo- rithms used to study relationship between nucleotide and protein sequences and reconstruction 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, epigenomic 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.

C174A. Advanced Topics in Cell and Molecular Biology: Molecular Evolution. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 4 or 107. Recent developments in fields of molecular, cell, and developmental biology. Current developments in field of molecular evolution. Constructing evolutionary trees at molecular level; formal testing of evolutionary hypotheses using sequencing data. Concurrently scheduled with course C222A. Letter grading.


M175A. Neuroscience: From Molecules to Mind—Cellular and Systems Neuroscience. (5) Same as Neuroscience M101B, Psychological Science M180A, and Psychology M117A.) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 30A (14C may be taken concurrently), Life Sciences 7C, Physics 1B or 1BH or 5C or 6B. 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, neural processing, and how assemblies of neurons process complex information and control movement. P/NP or letter grading.


180A. Scientific Analysis and Communication I. (2) Seminar, three hours. Enforced requisites: course 180A. Students read and discuss scientific articles and give presentations, introducing research topics using relevant primary literature. Critical aspects of research process, including biotic keeping, ethics, lab safety and citizenry, mechanics of scientific writing, diverse approaches to research, and project responsibilities and ownership. Acquisition of in-depth and broad knowledge about research project, 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: courses 180A, 180B, 197, 198, 199A or 199B, 199C or 199D. Enforced corequisite courses 196A. Students give presentations to laboratory meeting or research symposium talk in which speakers discuss project goals, methodological approaches, results, and conclusions. How to write research papers as well as with present scientific posters. Production of deliverables that demonstrate research achievement and creation of sense of pride for work accomplished. Skills development. Letter grading.

187AL. Research Immersion Laboratory in Genomics. (5) Lecture, three hours; laboratory, six hours. Requisites: Life Sciences 4 or 107, 23L. Course 187AL is required to take 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 annotation and drive their projects 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. P/NP or 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.

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 may not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisites: 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 requisites: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to complete research. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (2) 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. Design 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: Molecular, Cell, and Developmental Biology. (4) Tutorial, six hours. Enforced corequisites: courses 191A or 191B or 191C. Limited to majors in Molecular, Cell, and Developmental Biology. May be repeated once for credit. P/NP or letter grading.

192A. Undergraduate Practicum in Molecular, Cell, and Developmental Biology. (4) Seminar, three 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 to develop innovative programs under guidance of faculty members 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. Limited to 20 students. Training and supervised practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative programs under guidance of faculty members 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. (1) Seminar, two hours. Corequisites: course 193A or 198B or 198C or 199 or 199A or 199B or 199C. Limited to juniors/seniors. Development of in-depth research ability to discuss current literature in field of students’ own research. May be repeated for credit. P/NP grading.

194A. Research Group Seminars: Molecular, Cell, and Developmental Biology. (1) Seminar, two hours. Corequisites: course 194A or 198A or 198B or 199A or 199B or 199C. Limited to juniors/seniors. Involvement in laboratory’s weekly research group meeting to encourage student participation in research and to stimulate interest in career areas. 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. P/NP or letter 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 significant research involvement. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Letter grading.

196A. Enriched Undergraduate Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Requisites: Life Sciences 3, 4, 7A, 7B, 7C, 23L, and 107, 3D premajor and/or major grade-point average of 3.0 or better, or other activities and led by lecture course instructor. Individual study in regularly scheduled meetings with faculty mentor to complete research. Individual contract with faculty mentor may not be repeated. Letter grading.

196B. Enriched Undergraduate Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Requisites: Life Sciences 3, 4, 7A, 7B, 7C, 23L, and 107, 3D premajor and/or major grade-point average of 3.0 or better, or other activities and led by lecture course instructor. Individual study in regularly scheduled meetings with faculty mentor to complete research. Individual contract with faculty mentor required. May not be repeated. Letter grading.

196C. Enriched Undergraduate Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Requisites: Life Sciences 3, 4, 7A, 7B, 7C, 23L, and 107, 3D premajor and/or major grade-point average of 3.0 or better, or other activities and led by lecture course instructor. Individual study in regularly scheduled meetings with faculty mentor to complete research. Individual contract with faculty mentor required. May not be repeated. Letter grading.

196D. Enriched Undergraduate Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Requisites: Life Sciences 3, 4, 7A, 7B, 7C, 23L, and 107, 3D premajor and/or major grade-point average of 3.0 or better, or other activities and led by lecture course instructor. Individual study in regularly scheduled meetings with faculty mentor to complete research. Individual contract with faculty mentor required. May not be repeated. Letter grading.
faculty member to broaden and deepen students' knowledge of some phase of molecular, cell, and developmental biology. Must be taken for at least three terms and for total of 12 units. Report on progress must be presented to undergraduate advisor each term 198 course is taken. Individual contract required. Letter grading. 199B. Directed Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Requisites: course 199A, Life Sciences 3 and 4, or 7A, 7B, 7C, 23L, and 107. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Development and completion of comprehensive research project and honors thesis under direct supervision of approved faculty member to broaden and deepen students' knowledge of some phase of molecular, cell, and developmental biology. Must be taken for at least three terms and for total of 12 units. Report on progress must be presented to undergraduate advisor each term 199B course is taken. Individual contract required. Letter grading. 199C. Directed Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Requisites: course 199B, Life Sciences 3 and 4, or 7A, 7B, 7C, 23L, and 107. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Development and completion of comprehensive research project and honors thesis under direct supervision of approved faculty member to broaden and deepen students' knowledge of some phase of molecular, cell, and developmental biology. Must be taken for at least three terms and for total of 12 units. Report on progress must be presented to undergraduate advisor each term 199C course is taken. Individual contract required. Letter grading. 199D. Directed Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Requisites: Life Sciences 3 and 4, or 7A, 7B, 7C, 23L, and 107. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Development and completion of comprehensive research project and honors thesis under direct supervision of approved faculty member to broaden and deepen students' knowledge of some phase of molecular, cell, and developmental biology. Must be taken for at least three terms and for total of 12 units. Report on progress must be presented to undergraduate advisor each term 199D course is taken. Individual contract required. Letter grading. 199A. Directed Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Preparation: submission of written proposal to department for approval by appropriate term deadline. Proposal to be developed in consultation with instructor, or as determined by the instructor. Requisites: Life Sciences 3 and 4, or 7A, 7B, 7C, 23L, and 107. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Development and completion of comprehensive research project and honors thesis under direct supervision of approved faculty member to broaden and deepen students' knowledge of some phase of molecular, cell, and developmental biology. Must be taken for at least three terms and for total of 12 units. Report on progress must be presented to undergraduate advisor each term 199A course is taken. Individual contract required. Letter grading. C222A. Advanced Topics in Cell and Molecular Biology: Molecular Evolution. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 4 or 107. Recent developments in fields of molecular, cell, and development. Recent developments in field of molecular evolution. Constructing evolutionary trees at molecular level; formal testing of evolutionary hypotheses using sequencing data. Original research proposed by student. Concurrently scheduled with course C174A. Letter grading. C222B. Advanced Topics in Cell and Molecular Biology: Molecular Biology of Cell Nucleus. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 4 or 107. Recent developments in fields of molecular, cell, and developmental biology. Animal cell nucleus regulation of cell metabolism. Structure/function relationships, nuclear-cytoplasmic exchange, DNA replication and gene expression. Original research proposal required. Concurrently scheduled with course C174B. Letter grading. 224. Molecular Basis of Vascular Biology. (4) Lecture, four hours. Requisites: Life Sciences 3, 4. Developmental and pathological aspects of vascular biology. Presentation and discussion of key questions of vascular biology with mechanistic viewpoint. Major emphasis on experimental approaches and current research in field. Introduction to several model systems along with presentation of specific topic. Basic information provided as to how this knowledge is obtained in laboratory using variety of experimental approaches in vascular biology. Letter grading. 228. Prokaryotic and Eukaryotic Gene Systems. (2) Lecture, two hours. Presentations concerning current experimental approaches in study of DNA replication, organization, transcription, and translation. S/U or letter grading. 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 RNAs; structures of fibrous proteins, nucleic acids, and polysaccharides; 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. M230D. Structural Molecular Biology Laboratory. (2) (Same as Chemistry M230D.) Laboratory, ten hours. Corequisites: 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. M234. Genetic Control of Development. (4) (Same as Biological Chemistry M234.) Lecture, four hours. Topics at forefront of molecular developmental biology, including problems in early development, including problems in oogenesis and early embryogenesis, pattern formation, axis determination, nervous system development, cellular morphogenesis, and cell-cell and cell-matrix interactions. S/U or letter grading. C239. Molecular Basis of Plant Differentiation and Development. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 3, 4, and 23L, 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 basis of research in this field. Concurrently scheduled with course C141. Preparation and presentation of term paper, in addition to other coursework, required of graduate students. Letter grading. 242. Topics in Neurobiology. (4) Lecture, three hours. Requisites: course 171. Selected current problems in neurobiology discussed in depth, with emphasis on analysis of original papers. May be repeated for credit. Letter grading. C250. Plant Communication. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Most important of plants as species and as they live in 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 miscon-
ceptions 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 make that biomass in sustainable manner. Introductory course in chemical ecology and how natural compounds affect gene expression. Emphasis on role of natural compounds in plant/microbe, plant/plant, and plant/herbivore interactions; synopsis of principles of plant defense mechanisms and responses to microbial infections. Concurrently scheduled with course C150. S/U or letter grading.

254. Seminar: Plant Morphogenesis. (2) Seminar, two hours. S/U or letter grading.

255. RNA Editing. (4) Lecture, two hours; discussion, one hour. Preparation: 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 editing in trypanosome mitochondria, C to U substitution editing in apo B mRNA and plant mitochondria, C insertion editing in Physarum mitochondria, etc. Discussion of mechanism, function, and evolution of these phenomena. S/U grading.

CM256. Human Genetics and Genomics. (5) (Same as Microbiology CM256.) 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 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 literature, with focus on current questions in fields of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM156. Independent research project required of graduate students. Letter grading.

266A-266B-266C. Seminars: Development, Stem Cells, and Disease Mechanisms. (2–2–2) Seminar, two hours; discussion. Graduate students. Advanced courses based on research papers on fundamental cellular mechanisms governing development and disease. Disease results from genetically determined or acquired deficits in cell and molecular processes; analysis of these processes in context of normal development indicates ways of dealing with corresponding disease. S/U grading.

M272. Stem Cell Biology and Regenerative Medicine. (4) (Same as Pathology M272.) 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.

276. Seminar: Molecular Genetics. (2) Seminar, two hours. Topics vary each term. S/U or letter grading.


278. Seminar: Molecular Genetics of Development. (2) Seminar, two hours. Designed for graduate students. Topics vary from year to year, with focus on establishment of position and pattern during embryogenesis by interaction of signaling and transcriptional 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 eukaryotes. Topics vary from year to year and include bioenergetics, motility, organelle DNA, membrane structure and function, oncogenic transformation, nuclear organization and function. S/U or letter grading.

284. Seminar: Structural Macromolecules. (2) Seminar, one hour; discussion, three hours. Presentation and discussion of current topics in extracellular active structural macromolecules—their synthesis, structure, and role in cell and developmental biology. Letter grading.

288. Seminar: Plant Development. (2) Seminar, one hour; discussion, two hours. Preparation: one plant biology course and at least one advanced undergraduate or graduate plant development or biochemistry course. Seminar on specific topics in plant development. Content varies each term. S/U grading.

289. 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.


296. Advanced Topics in Molecular, Cellular, and Developmental Biology. (2) Discussion, three hours. Advanced 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 Development and Plant/Microbe Interactions. (2) Discussion, two hours. Recent advances in plant molecular biology, with emphasis on control of gene expression both during plant development and in plant/microbe interactions. 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.

485. Preparation for Teaching Molecular, Cell, and Developmental Biology in Higher Education. (2) Seminar, two hours. Designed for graduate students. Study of problems and methodologies in teaching molecular, cell, and developmental biology, including workshops, seminars, apprentice teaching, and peer observation. S/U grading.


597. Preparation for MA Comprehensive Examinations. (2 to 12) Tutorial, 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) 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
Box 957246
Los Angeles, CA 90095-7246

Molecular, Cellular, and Integrative Physiology
310-825-3891
E-mail contact

Mark A. Frye, PhD, Chair
Xia Yang, PhD, Vice Chair

Faculty Committee

Christopher S. Colwell, PhD (Psychiatry and Biobehavioral Sciences)
Stephanie M. Correa VanVeen, PhD (Integrative Biology and Physiology, Neurobiology)
Mark A. Frye, PhD (Integrative Biology and Physiology, Neurobiology)
Thomas J. O’Dell, PhD (Pharmacology)
James G. Tidball, PhD (Integrative Biology and Physiology, Pathology and Laboratory Medicine)
Thomas M. Vondriska, PhD (Anesthesiology and Perioperative Medicine, Medicine, Physiology)
Yibin Wang, PhD (Anesthesiology and Perioperative Medicine, Medicine, Physiology)

Overview

Physiology is the study of the functional processes 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 differing selective forces. Thus, physiology contributes importantly to advances in knowledge both in the basic biological sciences and in biomedical 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 physiologists who apply modern knowledge in molecular and cellular biology and systems physiology to important questions in organismic function. Students learn to conceptualize 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 physiology 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

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

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.

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 Association (AHA) are organized. Development and writing of students’ own R01, R21, F31, or AHA grant application. 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 involved have been elucidated. Focus on muscle diseases 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 muscular dystrophy, and other forms of genetically inherited muscle disease. 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 complex diseases. Topics include transcriptomics, genetics, functional genomics, network biology, and high-level integration. Letter grading.

252. Molecular Mechanisms of Human Diseases I. (6 Formerly numbered 252A) Lecture, four hours; discussion, two hours. Preparation: prior satisfactory molecular biology coursework. Fundamental concepts and methodologies in modern biology and medicine, with emphasis on systems-based research and mechanistic understanding to human diseases and therapies as they apply to neural, immune, cardiovascular, and metabolic systems. Reading, review, and discussion of primary research literature addressing fundamental 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, as well as effective articulation in scientific debate and exchange. Letter grading.

262. Molecular Mechanisms of Human Diseases II. (6 Formerly numbered 252B) Lecture, four hours; discussion, two hours. Preparation: prior satisfactory molecular biology coursework. Requisite: course 252A. Fundamental concepts and methodologies in modern biology and medicine, with emphasis on systems-based research and mechanistic understanding to human diseases and therapies as they apply to neural, cardiovascular, and metabolic systems. Includes reading, review, and discussion of primary research literature addressing fundamental 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. S/U or letter grading.

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 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 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
Box 951772
Los Angeles, CA 90095-1772

Molecular Toxicology
310-206-1619

E-mail contact

Oliver Hankinson, PhD, Chair

Faculty Committee

Patrick Allard, PhD (Society and Genetics)
Jesus A. Araujo, MD, PhD (Environmental Health Sciences, Medicine)
Michael D. Collins, PhD (Environmental Health Sciences)
Oliver Hankinson, PhD (Pathology and Laboratory Medicine)
Shailey Mahendra, PhD (Civil and Environmental Engineering)
Robert H. Schiestl, PhD (Environmental Health Sciences, Pathology and Laboratory Medicine)

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 carcinogenesis. There is a particular emphasis on mechanisms 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 society 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 sophisticated characterization of toxicology has paralleled the increase in knowledge derived from the basic chemical and biological sciences.

Graduate Major

Molecular Toxicology PhD

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 (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

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 month. Seminar series which alternately features outside speakers and 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/ion homeostasis, carcinogenesis, DNA damage and repair, cancer and gene environmental interactions, toxicity testing and radiation carcinogenesis, toxicity 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 M247) 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 infused, such as importance of epigenetics and of microRNA and S/U or letter grading.

296B-296F. Research Topics in Molecular Toxicology. (2-5) 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 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

Herb Alpert School of Music

2539 Schoenberg Music Building

Box 951616

Los Angeles, CA 90095-1616

Music

310-825-4761

Travis J. Cross, DM, Chair

Faculty Roster

Professors

James K. Bass, DMA
Terence O. Blanchard (Kenny Burrell Professor of Jazz Studies)
Che-Yen Chen, MM
Lily Chen-Hafteck, PhD
Vladimir Chernov, MM
Travis J. Cross, DM
Richard D. Danielpour, DMA
Michael E. Dean, MD
Inna Faliks, DMA
Juliana K. Gondek, MD
Frank Heuser, PhD
Peter D. Kazaras, JD
William A. Kinderman, PhD (Leo M. Klein and Elaine Krown Klein Endowed Professor of Performance Studies)
Ian Krouse, DMA
David S. Leftkowitz, PhD
Elisabeth C. Le Guin, PhD
Jens H. Lindemann, MM
Antonio Lyysy, PDip
Arturo O’Farrill, MM
Movses Pogosian, DMA
Neal H. Stulberg, MA

Professors Emeriti

Elaine R. Barkin, PhD
Roger Bourland, PhD
Kenneth E. Burrell, BA
Paul S. Chihara, PhD
Maurice Gerow, PhD
Gary G. Gray, MM
Frederick F. Hammond, PhD
Gordon Henderson, MME
Mark Kaplan, BA
D. Thomas Lee, DMA
Susan K. McClary, PhD
Donald Neuen, MA
James W. Newton, BM
Walter Ponce, DMA
Paul V. Reale, PhD
Jon Robertson, DMA
Robert Walser, PhD
Robert S. Winter, PhD (President Emeritus of Music and Interactive Arts)

Associate Professor

Jan N. Baker, DM

Assistant Professors

Jocelyn H. Ho, DMA
David Kaplan, DMA
Kay K. Rhee, DMA

Senior Lecturers SOE

John L. Hall, MM, Emeritus
Sheridon W. Stokes, Emeritus

Lecturer SOE

Maureen D. Hooper, EdD, Emerita

Emeritus

Boris V. Alakhverdyan, MM
Ji Young An, DMA
Sumner M. Arano, MM
Denis Bouriak, PDip
Erin Bouriak, PDip
David A. Brennan, DMA
Wendy L. Caldwell, BM
Jonathan D. Davis, DMA
Maria Fortuna Dean, MM
Dante L. De Silva, PhD
Cheryl L. Fielding, DMA
Theresa A. Dimond, DMA
Margaret M. Flanagan Lyysy, PDip
Paul G. Floyd, DMA
Aubrey D. Foard, MM
Peter R. Golub, PhD
Gregory S. Goodall, MFA
Rakefet R. Hak, MM
Victoria H. Kirsch, MA
James D. Lent, DMA
Irakr Malkin, MM
Varty H. Manouelian, MM
Noah G. Meites, DMA
Dwayne S. Milburn, PhD
James T. Miller, MD
Lou Anne Neill, MA
Hitomi M. Oba, MA
Benjamin J. Phelps, PhD
At the graduate level, specialized studies lead to the degrees of Master of Arts (MA) and Doctor of Philosophy (PhD) are offered in composition; specialized studies leading to the degrees of Master of Music (MM) and Doctor of Musical Arts (DMA) are offered in all classical solo instruments, voice, and conducting. Jazz performance is offered at the master’s degree level. Students interested in a concentration in music history and literature should consider the major in Musicology, and those interested in a concentration in world music should consider the major in Ethnomusicology.

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

Admission

Applications for the Music BA are not being accepted at this time.

Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Orientation 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.

Required: Music M6A, M6B, M6C, 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.

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 gestural 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

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.

Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Orientation 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
required 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.

**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.

### 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 repertory of music that includes Western, non-Western, and popular musical genres
- 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

### 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, nontraditional notation, and current issues to performance of Western classical music
- Demonstrated knowledge about genres other than Western classical music or the scholarly study of music and/or the business practices associated with the music industry
- Conception, preparation, and performance of a public solo recital of Western classical music, including a printed program and program notes

### Admission

Applicants are required to audition in their principal performance medium and interview with the music education faculty.

#### Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Orientation 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.

Required: (1) Musicianship—Music M6A, M6B, M6C, with grades of C– or better; (2) Theory—20A, 20B, 20C, 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 C175A through C175G, C171, 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—12 units from Music C185D or C185E. 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 appropriate ethnomusicology ensembles.

Voice: (1) Voice studio and voice coaching—18 units of Music 61A and 61B; (2) Singing diction—Music 74A, 74B, 74C; (3) Large conducted ensembles—12 units from Music C185A through C185C; (4) Language—one college year—or at least one course at level three—of French, German, Italian, or Spanish, which may be used to fulfill the school language requirement.

The Major

Required: (1) Theory—Music 120A, 120B, 120C, with grades of C or better; (2) History—140A, 140B, 140C, with grades of C or better.

Based on instrument or voice, one concentration selected below:

Brass, percussion, and woodwinds: (1) Advanced instrumental studio—10 units from Music 160A through 160J; (2) Chamber ensembles—4 units from Music C175A through C175G; (3) Large conducted ensembles—12 units from Music C185D 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 167S, 167T, or 167U. 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. All recitals are videotaped and archived; performances are evaluated by a jury.

Graduate Majors

Master of Music

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Music DMA

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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.

M6A-M6B-M6C. Introduction to Musicianship. (2–2–2) 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.

15. Art of Listening. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Acquisition of listening skills through direct interaction with live performance, performers, and composers. Relationship 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 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. Music Theory I. (3) Lecture, four hours. Preparation: passing score on departmental examination. Course 20A is enforced requisite to 20B, 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: harmonic progressions through secondary dominants and diminished sevenths; modulations to dominant 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, voice-leading, harmonic progression analysis and style composition. P/NP or letter grading.


50. Alexander Technique. (2) Formerly numbered 90P. Lecture, four hours; outside preparation and practice, two hours. Limited to Ethnomusicology, Music, and Musicology majors. Introduction to principles of Alexander Technique. Study of musician’s postural and physical application as application of theory. Designed to help instrumentalists and vocalists prevent injuries and performance anxiety. May be repeated with consent of instructor. Letter grading.

60A-60U. Instrumental Studio. (2 each) Studio, one hour; outside practice, six to eight hours. Limited to freshman/sophomore Music Performance majors and junior Music Education and Music Composition majors. Students must perform in one practicum during academic year. Grades are assigned by applied instructor. Pre-requisites: quarter and by examination in spring quarter. May be repeated for maximum of 12 units. P/NP or letter grading. 60A. Flute. (Formerly numbered 61A.) 60B. Oboe. (Formerly numbered 61B.) 60C. Clarinet. (Formerly numbered 61C.) 60D. Saxophone. (Formerly numbered 61D.) 60E. Bassoon. (Formerly numbered 61E.) 60F. French Horn. (Formerly numbered 62B.) 60G. Trumpet. (Formerly numbered 62C.) 60H. Trombone. (Formerly numbered 62D.) 60I. Tuba/Euphonium. (Formerly numbered 62D.) 60J. Percussion. (Formerly numbered 63.) 60K. Violin. (Formerly numbered 60A.) 60L. Viola. (Formerly numbered 60B.) 60M. Cello. (Formerly numbered 60N.) 60N. String Bass. (Formerly numbered 60D.) 60O. Harp. (Formerly numbered 60E.) 60P. Guitar. (Formerly numbered 60F.) 60Q. Lute. (Formerly numbered 60G.) 60R. Marimba. (Formerly numbered 60G.) 60S. Piano. (Formerly numbered 66A.) 60T. Organ. (Formerly numbered 64B.) 60U. Harpsichord. (Formerly numbered 64C.)

61A. Voice Studio. (2) Formerly numbered Music 65.) Studio, one hour; outside practice, six to eight 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 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 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 6 units. P/NP or letter grading.

61C. Voice Coaching for Music Education Specialists. (3) Studio, 30 minutes; outside practice, 90 minutes. Corequisite: course 61A. Limited to lower-division Music Education majors. Emphasis on repertoire and improving 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 3 units. P/NP or letter grading.

66. Composition Studio. (2) Studio, one hour per week to be arranged with instructor; outside study, five hours per week. Corequisites: courses 20B, 200A, 200B, 200C. Limited to Music Composition students and designed for sophomores. One-on-one composition lessons with assignments and compositions tailored to student’s background, interest, and level. Emphasis in lessons will address counterpoint, voice-leading, harmonic and melodic construction, orchestration, form, texture, style, notation, and performance feasibility. May be repeated twice for credit up to 1800.

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 vocal repertoire, including opera, 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 juries. P/NP or letter grading. 74A. English and Italian. Introduction to basics of diction and development of English and Italian skills for beginning students. 74B. German. Introduction to basics of diction and development of German skills for beginning students. 74C. French. Introduction to basics of diction and development of French skills for beginning students.

80A. Beginning Keyboard. (4) Laboratory, five hours; preparation/practice, seven hours. Simple 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.

80B. Intermediate Keyboard. (4) Laboratory, five hours; preparation/practice, seven hours. Enforced requisite: course 80A. Review of basic keyboard concepts, with focus on developing comprehensive keyboard musicianship ranging from music theory, sight-reading, composing, improvising, analysis of form, study of musical terms and notations, chords, scales, cadences, transposition, and ear training. Offered in summer only. P/NP or letter grading.

80E. Sight Singing and Ear Training. (4) Laboratory, four hours. Designed for students of all ages and genres to improve their ability to sing by ear and/or read music. Course conducted as much as possible without instrumental accompaniment (i.e., a cappella), and special emphasis is placed on acquisition of skills related to relative pitch and recognition of intervals (i.e., relationships between pitches). Letter grading.

80F. 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 instruction for singers at beginning to intermediate level. Exploration of fundamentals of vocal technique, including breathing, voice control, resonance, care of voice, dictation, and interpretation. Beginning vocal repertoire used as vehicle for 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 than through survey, through discovery, 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.

M90T. Early Music Ensemble. (4) Same as Musicology CM90T. Activity, four hours. Preparation: audition. Group performance of Western vocal and instrumental music from Baroque through Romantic periods. 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

M103. Creating Musical Community. (4) Same as Ethnomusicology M103, Global Jazz Studies M103, and Musicology M103. Lecture, seminar, and student activity. 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 literatures and notion of social contract that forms basis of musical notation. Drawing from American music folk game traditions, highlights complex history of this code and in which entire body is used as resource when instruments are unavailable. Letter grading.

104A. Modal Counterpoint. (3) Lecture, three hours. Requisites: course 120C (accelerated section). In-depth exploration of styles and techniques of counterpoint of 15th and 16th centuries through writing 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 techniques of 17th and 18th centuries with emphasis on late-19th- and 20th-century modes of expression, through writing and analysis. Letter grading.

106A. Orchestration I. (4) Discussion, three hours. Requisites: courses 120C (accelerated section), 123C. Ranges and characteristics of instruments, with exercises in scoring. P/NP or letter grading.

106B. Orchestration II. (4) Discussion, three hours. Requisites: courses 106A, 120C (accelerated section). In-depth study of instrumentation, techniques, and methods of contemporary composers. Letter grading.

C109A. 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 C209A. P/NP or letter grading.

C109B. Bassoon Reed Making. (1) Activity, one hour; outside study, two to three 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 C209B. P/NP or letter grading.

110A. Learning Approaches in Music Education. (4) Lecture; two hours; activity, two hours; outside study, three to four hours. Enroll in 20A. Introduction to music education by development of concepts, attitudes, and skills necessary to teach music and philosophical, historical, cultural, and psychological...
ical foundations of music education, with emphasis on learning theories and psychology of music learning. Conceptualization of concepts by engaging in nonno-
tional modes of music learning, including systematic aural transmission and informal learning. 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 to teach music at preschool and elementary school levels. Development of understanding of developmental characteristics, diverse cultures, and learning needs of children and design of instructional strategies that are age-appropriate and responsive to students' background. Focus on practice of student-centered curriculum where students are active learners facilitated by teachers proficient in providing children with music learning environment that is conducive to optimal growth in their musicality and creativity. Frequent field visits. Letter grading.


112. Guided Field Experiences in Music Education. (1) Field study. 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/NP grading.

114A-114B. Study of Instrumental Techniques. (1–1) Studio, three hours. Requisite or corequisite: course 20A. 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 instructional 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 teach music successfully in general music, instrumental ensemble, and choral ensemble classes. Letter grading.

115A-115B-115C. Study of Instrumental Techniques. (2-2-2) Studio, four hours; outside study, two hours; outside course, two hours. Applied performance studies in basic performance techniques and tutorial materials designed to give music education students knowledge to teach basic instrumental concepts. Letter grading. 115A. Woodwinds. 115B. Brass. 115C. Percussion.


117. Study and Conducting of Instrumental and Choral Literature. (2) Lecture, three hours. Requisite: coursework 116. Preparation 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 C218A. P/NP or letter grading.

C118B. Choral Techniques and Methods. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117, C118A. Choral pedagogy, vocalizing and warm-up techniques, diction, and rehearsal and audition techniques. May be repeated once for credit. Concurrently scheduled with course C218B. P/NP or letter grading.

119. Jazz and Technology Pedagogy. (3) Formerly numbered 119C) Lecture, two hours; activity, two hours; outside study, five hours. Enforced requisites: courses 20A, 20B, 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 IV. (4) Lecture, four hours; discussion, four hours; preparation, two hours; outside study, one hour; examination, one hour. Preparation for departmental first-year examination. Requisite: course 20C with grade of C (2.0) or better. Theory: baroque counterpoint including chorale prelude; two-part invention; exposition and first modulation of three-part invention; canonic principles; analysis of inventions, canons, and fugues. Musicianship: sight-singing of extended chromatic melodies; advanced harmonic dictation. Harmony and counterpoint and the harmonicization of modulating melodies; elementary score reading. P/NP or letter grading.

120B. Music Theory V. (4) Lecture, four hours; discussion, four hours; preparation, two hours; outside study, one hour. Enforced requisite: course 120A with grade of C (2.0) or better. Theories: 20th-century harmonic language, including nonfunctional harmony, polytonality, free atonality, serialism, and minimalism. P/NP or letter grading.

120C. Music Theory VI. (4) Lecture, four hours; discussion, two hours; listening, two hours; requisites: course 120B with grade of C (2.0) or better. Theories: 20th-century harmonic language, including development of harmony from 1850; analytical projects; style composition. Musicianship: advanced score reading; advanced harmonic dictation; preparation for departmental examination. P/NP or letter grading.

122. Speculative Music Theory. (4) Formerly numbered C122.) Seminar, three hours. 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/NP or letter grading.

123. Advanced Conducting. (6) Lecture, four hours; discussion, two hours; outside study, two hours. Requisites: courses 120A, 120B, 120C (accelerated section). Preparation for scoring in choral and instrumental literature. Letter grading.

124A. Scoring for Wind Ensemble. (4) Discussion, three hours. Requisites: courses 106B, 120C (accelerated section), 123C. Practical applications in scoring for large wind ensembles. Preparation and production of score and parts. May include percussion. At least one reading by UCLA Wind Ensemble scheduled. Letter grading.

124B. Scoring and Arranging for Choral Ensemble. (4) Discussion, three hours. Requisites: 106B, 120C (accelerated section), 123C. Practical applications in scoring and arranging for choral ensembles, including a capella as well as chorus with instruments. Preparation and production of score and parts. At least one reading by UCLA Chorale or other choral group scheduled. Letter grading.

M131. Development of Latin Jazz. (4) Same as Ethnomusicology M131 and Global Jazz Studies M131.) Lecture, four hours; discussion, one hour. Survey of historical and stylistic development of musical style referred to today as Latin jazz. P/NP or letter grading.

M134. Introduction to Armenian Music. (4) (Formerly and formerly M134 and Ethnomusicology 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 some music of Armenia from diverse genres and approaches, and interactions between music and culture, society, and history. P/NP or letter grading.

140A-140B-140C. History and Analysis of Western Music. (5–5–5) Lecture, four hours; discussion, one hour. Survey of Western music; examination of representative compositions within their cultural contexts and development of analytical methods appropriate to each repertory. Letter grading. 140A. To 1700. Requisite: course M134. Students must receive grade of C or better to proceed to next course in sequence. 140B. To 1890. Enforced requisite: course 120C with grade of C or better. 140C. To 1890. Present. Enforced requisite: course 140B with grade of C or better.

C150. 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 reading, scoring, reading, transposition, figured bass, harmonization, improvisation, score reduction, and ensemble issues. Concurrently scheduled with course C455. P/NP or letter grading.

C155. 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 text and score preparation, weekly rehearsals, regular coaching, and performances for events, recitals, master classes, auditions, and other related activities. Regular coaching with faculty members, weekly performance workshops, and rehearsals. Concurrently scheduled with course C455. P/NP or letter grading.

C158A-C158G. Advanced Vocal Repertoire, Discussion, and Interpretation. (2) Activity, two hours; outside study, four hours. Requisite: course 74C. Performance-based course that develops repertoire and experience in collaborative performance for pianists and vocalists. Activities include text and score preparation, diction, weekly rehearsals, regular coaching, and performances for lessons, recitals, master classes, auditions, and other related activities. Intensive diction techniques. Regular coaching with faculty members, weekly performance workshops, and rehearsals. Concurrently scheduled with course C455. P/NP or letter grading.
161C. Advanced Vocal Coaching for Music Education Majors. (5) Studio, 30 minutes; outside practice, 90 minutes. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on repertory, vocal technique, and health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

161B. Advanced Vocal Coaching. (1) Studio, one hour; outside practice, three hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

161A. Advanced Vocal Coaching for Music Education Specialists. (5) Studio, 30 minutes; outside practice, 90 minutes. Corequisite: course 161A. Limited to upper-division Music Education majors. Emphasis on vocal technique, health, and preparation for performance practices of literature appropriate to upper-division students. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160C. Advanced Voice Studio. (2) (Formerly numbered 160B.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160B. Advanced Voice Studio. (2) (Formerly numbered 160C.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160A. Advanced Voice Studio. (2) (Formerly numbered 160D.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160F. Advanced Voice Studio. (2) (Formerly numbered 160E.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160K. Advanced Voice Studio. (2) (Formerly numbered 160F.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160S. Advanced Voice Studio. (2) (Formerly numbered 160G.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160R. Advanced Voice Studio. (2) (Formerly numbered 160H.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160M. Advanced Voice Studio. (2) (Formerly numbered 160I.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160N. Advanced Voice Studio. (2) (Formerly numbered 160J.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160U. Advanced Voice Studio. (2) (Formerly numbered 160K.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160V. Advanced Voice Studio. (2) (Formerly numbered 160L.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160W. Advanced Voice Studio. (2) (Formerly numbered 160M.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160X. Advanced Voice Studio. (2) (Formerly numbered 160N.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160Y. Advanced Voice Studio. (2) (Formerly numbered 160O.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

160Z. Advanced Voice Studio. (2) (Formerly numbered 160P.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on vocal technique, health, including breath control, pitch, range, resonance, and flexibility. May be repeated for credit up to a maximum of 15 units. P/NP or letter grading.

165C. Opera Workshops. (2) (Formerly numbered 90D.) Activity, six hours. Preparation: audition. Rehearsal and performance of scenes and complete opera, as well as repertoire, stage movement, and foreign language diction coaching. May be repeated for credit without limitation. May be concurrently scheduled with course C480C. P/NP or letter grading.

185D. Symphony Orchestra. (2) (Formerly numbered C390E.) Activity, three hours. Preparation: audition. Group performance of symphonic orchestral literature. May be repeated for credit without limitation. May be concurrently scheduled with course C480D. P/NP or letter grading.

185E. chamber Music. (2) (Formerly numbered C390F.) Activity, six hours. Preparation: audition. Group performance of chamber music; May be repeated for credit without limitation. May be concurrently scheduled with course C480E. P/NP or letter grading.

185F. Symphonic Band. (2) (Formerly numbered 90F.) Activity, two hours. Preparation: audition. Group performance of band literature. May be repeated for credit without limitation. P/NP or letter grading.

185G. Wind Ensemble. (2) (Formerly numbered C390G.) Activity, six hours. Preparation: audition. Group performance of band literature. May be repeated for credit without limitation. May be concurrently scheduled with course C480G. P/NP or letter grading.

185H. Marching and Varsity Bands. (2) (Formerly numbered 90H.) Activity, six hours. Preparation: audition. Group performance of special band arrangements for football and basketball games as well as special events. May be repeated for credit without limitation. P/NP or letter grading.

186A. Piano/Keyboard Accompanying. (2) (Formerly numbered C390H.) 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 C484A. P/NP or letter grading.

186B. Guitar Accompanying. (2) (Formerly numbered 90I.) 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 C484B. P/NP or letter grading.

186C. Harp Accompanying. (2) (Formerly numbered 90J.) 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 C484C. P/NP or letter grading.

186D. Saxophone. (2) (Formerly numbered 90K.) Activity, four hours; outside study, two hours. Preparation: audition. Rehearsal and performance of scenes and complete opera, as well as repertoire, stage movement, and foreign language diction coaching. May be repeated for credit without limitation. May be concurrently scheduled with course C480D. P/NP or letter grading.

186E. Horn Accompanying. (2) (Formerly numbered 90L.) Activity, four hours; outside study, two hours. Preparation: audition. Rehearsal and performance of scenes and complete opera, as well as repertoire, stage movement, and foreign language diction coaching. May be repeated for credit without limitation. May be concurrently scheduled with course C480E. 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 preparatory research. May not be repeated for credit. May be concurrently scheduled with course C292. 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 preparatory research. May not be repeated for credit. May be concurrently scheduled with course C292. P/NP or letter grading.
Graduate Courses


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188BS. Limited to USIE 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 Music. (2 to 4) Tutorial, six hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with supervising faculty member. Internship period dependent on work experiences. May be repeated for maximum of 6 units. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Music. (2 or 4) Tutorial, one hour. Preparation: 3.0 grade point average. Limited to seniors. Individual intensive study in music, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter (research project) required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

203. Notation and Performance. (4) Seminar, three hours; outside study, nine hours. Designed for graduate music students. Survey analysis of evidence held by 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.

218A. Advanced Choral Conducting. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117. Conducting basics, baton technique, beat patterns, dynamics, scores, and analysis. May be repeated once for credit. Concurrently scheduled with course C118A. Letter grading.

218B. Choral Techniques and Methods. (2) Lecture, three hours; studio, two hours. Requisites: courses 116, 117, 218A. Vocal and choral pedagogy, vocalizing and warm-up techniques, dictation, and rehearsal and audition techniques. May be repeated once for credit. Concurrently scheduled with course C118B. Letter grading.

226. 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. Enforced graduate for students. Limitation on enrollment. Exercises in electroacoustic orchestration, meta-pitch composition, notation software (Sibelius), sequencing and mixing software (Logic), used soundscapes (Pro-Tools), and final project. May be concurrently scheduled with course C176. S/U or letter grading.


252. Seminar: Composition. (4) Seminar, three hours. Compositional projects for varying acoustic instruments and vocal ensembles. Students expected to perform their composition of two sketches at prime or present notation files of work-in-progress with playback file, where appropriate. Performance of completed works in graduate composition concerts by UCLA student participants. S/U or letter grading.


254. Advanced Music Analysis: Pre-Tonal Music. (4) Seminar, three hours. Designed to provide graduate composition students with in-depth exposure to complex and rich works of late Middle Ages through baroque era. Exploration of analytical techniques and methods not commonly used 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 theoretical approaches to and analysis of selected works of common-practice style. Discussion of assigned pieces using various theoretic approaches and presentation of analyses in class. Letter grading.

256. Advanced Music Analysis: Post-Tonal Music. (4) Seminar, three hours. Designed for graduate music students. Discussion of theoretical approaches to and analysis of selected works of 20th or 21st century. Analysis of assigned pieces using various theoretic approaches discussed and presentation of analyses in class. Letter grading.

260A. Seminar: Composition for Motion Pictures and Television. (6) Seminar, three hours; laboratory, three hours. Practical experience in composing for commercial movies. Difference between underscore and source music. Ineffectiveness of music when it becomes at odds with, or distracts from, the film. Study of three principal areas of film-making—preproduction, production, and postproduction. Exploration of factors hiding in classical movies and discussion of their scores. Composition of actual cues for acoustic instruments coordinated to picture to be term project. Separate cues involve dialogue, melodrama, comedy, voice, memory montage, and tension. Letter grading.

260B. Seminar: Composition for Motion Pictures and Television. (8) Seminar, three hours; laboratory, three hours. Focusing on creating one entire score for television episode or original student film. Discussion of recent television shows. Composition of one original title song and short cues to someone else’s song required. Term assignment involves student orchestra recording to picture, designed 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 practices as related to period; analytical reports and practical applications in class demonstration. May be repeated for credit. Letter grading. 261A. Medieval; 261B. Renaissance; 261C. Baroque; 261D. Classical; 261E. Romantic; 261F. Contemporary; 261J. Jazz.

263. Graduate Composition Seminar. (1) one hour arranged with instructor; outside study, 11 hours. Limited to graduate composition students. One-on-one composition lessons, with assignments and compositions tailored to each student’s progress and level of achievement, addressing counterpoint, voice-leading, harmonic and melodic construction, orchestration, form, texture, style, notation, and performance feasibility of compositions worked on at advanced level. Presentation of at least one composition composed during course in graduate composition concert during academic year. May be repeated for credit without limit. S/U or letter grading.

270A-270Q. Seminars: Music Education. (6 each) Seminar, three hours. May be repeated for credit without limit. S/U or letter grading. 270A. History; 270B. Non-Western Musics; 270C. Curriculum Innovations; 270D. Tests and Measures of Musical Ability; 270E. Choral Literature; 270F. Instrumental Literature; 270G. General Topics.

271. Selected Topics in Keyboard Literature. (2) (Formerly numbered C267.) Lecture, two hours. Enforced corequisite: course 460S or 460T 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. P/NP grading. May be concurrently scheduled with course C171. S/U or letter grading.

272. Music Industry, (4) Same as Ethnomusicology CM288 and Musicology CM288.) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Musicology majors. Examination of influence of music industry operating in various ways on music listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of audio recording to MTV and internet. May be concurrently scheduled with course CM182. Letter grading.

290. Composition Forum. (2) Seminar, two hours. Weekly forum to present professional composers of range of mediums, including large ensemble vocal and/or instrumental works, chamber music, electronic music, and film/television, as guest lecturers. Letter grading.

292. Seminar: Special Topics in Music. (4) (Formerly numbered 239F.) 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 C188. S/U or letter grading.

330. Introduction to Orff Schulwerk. (2) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Introduction to 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 strategies, and experience with this approach for children. Offered in summer only. S/U or letter grading.

331A-331B-331C. Orff Schulwerk Training Courses. (4-4-4) (Formerly numbered S331A-S331B-S331C.) Lecture, four hours; discussion, one hour. Requisite: course S331A. Course S331B is prerequisite to S331C. Course S331C is requisite to S331C. In-depth courses in teaching of Orff Schulwerk approach to music instruction for children. Students who successfully complete each course are eligible for certification at that level through American
341. Conducting for High School and College Band/Wind Ensemble Teachers. (Formerly numbered S341.) Lecture, two and one hour seminars. Corequisite: one hour of discussion of wind ensemble programs, including nonverbal communication, conducting, and rehearsal techniques. Study of new and recently published literature and discussions of development of wind ensemble programs. May be repeated for credit without limitation. S/U or letter grading.

342. Contemporary Marching Band. (Formerly numbered C455.) Lecture, two hours. Introduction to various approaches to marching band programs for high school and college teachers, including creative approaches to charging and drill design and use of microcomputers. May be repeated for credit without limitation. S/U or letter grading.

343. Effective and Creative String Teaching. (2) Lecture, 24 hours. Comprehensive course for teachers of string classes and string orchestras at elementary, junior high, and high school levels. Topics include development of instructional techniques for violin, viola, cello, and bass; critical examination of current pedagogical materials; and teacher development of practical techniques for solving real challenges in choral conducting and teaching. Topics include innovative choral methods, choral conducting, vocal pedagogy, voice classification, and survey of standard and current choral literature. S/U or letter grading.

345. Symposium on Art of Choral Music. (2) Formerly numbered S345.) Lecture, two and one half hours. Symposium for college, high school, and junior high school choral directors on development of practical techniques for solving real challenges in choral conducting and teaching. Topics include innovative choral methods, choral conducting, vocal pedagogy, voice classification, and survey of standard and current choral literature. S/U or letter grading.

350A. Introduction to Computer-Assisted Instruction of Music. (2) Lecture, three hours; laboratory, six hours. Exploration of computer technology and its application in music classroom, with emphasis on practical information necessary to intelligently purchase and implement microcomputers in schools. Courseware to be explored 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: Keyboards and Synthesizers. (2) Lecture, two hours; laboratory, three hours. Creative use of MIDI-based synthesizers under computer control. Exploration of available hardware resources allied with various software sequencing packages. Use of software for computer-based music 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 contemporary marching band as component of music curriculum in secondary education, including current approaches, practices, and problems associated with marching bands, as well as historical perspective. 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. Introduction to and 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. New Music Forum. (2) Tutorial/lab, two hours. Preparation: one year of graduate study in music at UCLA. Interactive course in preparation and performance of present-day work especially composed for graduate performer or performers by graduate composer at UCLA. Letter 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-reading, aural skills, figured bass, harmonicization, improvisation, score reduction, and ensemble issues. Concurrently scheduled with course C150. Letter grading.

455. Instrumental 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 violinists. Activities include text and score preparation, dictation, weekly rehearsals, regular coaching, and performances for lessons, juries, recitals, master classes, auditions, and other related activities. Regular attendance required. S/U or letter grading.

460A - 460V. Graduate Instrumental Studio. (6 each) Studio, one hour; performance laboratory/outside study, 17 hours. Limited to graduate performance students. Individual instruction, introduction to and preparation of musical literature in area of specialization. May be repeated for credit. Letter grading. 460A. Flute. (Formerly numbered 461A.) 460B. Oboe. (Formerly numbered 461B.) 460C. Bassoon. (Formerly numbered 461D.) 460D. Clarinet. (Formerly numbered 461C.) 460E. Saxophone. (Formerly numbered 461E.) 460F. French Horn. (Formerly numbered 461F.) 460G. Trumpet. (Formerly numbered 462A.) 460H. Trombone. (Formerly numbered 462C.) 460I. Tuba/Euphonium. (Formerly numbered 462D.) 460J. Percussion, Keyboard. (Formerly numbered 462C.) 460K. Violin. (Formerly numbered 460A.) 460L. Viola. (Formerly numbered 460C.) 460M. Cello. (Formerly numbered 460C.) 460N. String Bass. (Formerly numbered 460D.) 460O. Harp. (Formerly numbered 460Q.) 460P. Organ. (Formerly numbered 464A.) 460Q. Harpsichord. (Formerly numbered 464C) 460R. Fortepiano. (Formerly numbered 464D.) 461A. Graduate Voice Studio. (Formerly numbered 461A.) Studio, one hour; performance laboratory/outside study, 17 hours. Corequisite: course 461A. Limited to graduate voice students. Voice techniques and health, including breath control, pitch accuracy, range, resonance, and flexibility. Letter grading.

461B. Graduate Voice Coaching. (1) Studio, one hour; outside study, three hours. Corequisite: course 461A. Limited to graduate voice students. Emphasis on repertoire and improving performance. Grades are assigned by studio instructor in conjuction with vocal technique instructors. May be repeated for credit without limitation. S/U or letter grading.

466. Graduate Instruction in Performance: Jazz. (2) Studio, one hour; performance laboratory/outside study, 17 hours. Limited to graduate performance students. Individual instruction. Intensive study and preparation of musical literature in area of specialization. May be repeated for credit. Letter grading.
Activity, four hours; Concurrently scheduled with course C186B. S/U or master classes, concerts, auditions, juries, and other activities. May be repeated for credit without limitation. Concurrently scheduled with course C186C. S/U or letter grading.


C496C. Jazz Ensemble. (2) Studio, six hours. Designed for MM students in jazz performance area of study. Group performance of jazz repertoire. May be repeated for credit without limitation. Letter grading.

C496D. Percussion. C485E. Strings. C485F. Woodwinds. C485G. Flute. Contemporary. 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, classes, concerts, auditions, juries, and other activities. May be repeated for credit without limitation. Concurrently scheduled with course C186C. S/U or letter grading.

C485A-C485G. Chamber Ensembles. (1 each) Activity, one to two hours. Preparation; audition. Students must be at advanced level of their instrument to participate. Applied study of performance practices of literature appropriate to ensembles. Total of 12 units may be applied toward degree requirements for music performance students. May be concurrently scheduled with courses C175A-C175G. S/U or letter grading.

C486C. Group performance of jazz repertoire. May be repeated for credit without limitation. Letter grading.


C493A. 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.

C493C. 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.

C493D. 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.

C493E. Preparation for Master’s Comprehensive Examination. (3) Tutorial, to be arranged. S/U grading.

C493F. 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**

**Interdisciplinary Minor**

**Herb Alpert School of Music**

1642A Schoenberger Music Building

Box 815166

Los Angeles, CA 90095-1616

Music Industry

310-825-4768

E-mail contact

Robert W. Fink, PhD, Chair

Faculty Committee

Lily Chen-Hafteck, PhD (Musicology)
Nina S. Eidsheim, PhD (Musicology)
Robert W. Fink, PhD (Musicology)
Juliana K. Gondek, MM (Music)
Steven J. Loza, PhD (Ethnomusicology)

**Overview**

The Music Industry minor is an interdisciplinary and interdepartmental series of courses designed to introduce students to a critical perspective on the formative effects the music industry and music technology has had on musical practices around the world; prepare students for employment in the music industry, including marketing and sales, artist management and intellectual property, sound recording and audio technology, songwriting and record production; and contribute to improved communication and interaction between UCLA, the music industry, and the musical life of Los Angeles.

**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-year students. Intensive study and preparation of final master’s recital, normally taken in lieu of 400-level lessons during final recital term. 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**

**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.

29. Music Documentary in History and Practice. (4) (Formerly numbered 109.) Lecture, three hours; discussion, one hour. Close analytical look at popular music documentaries and goals, methods, and challenges of making them. Almost all audio-visual material produced by music industry (whether distributed in theater, on television, from website, or through social media) aims to bring attention to music that artists make. General introduction to theory and practice of visual storytelling. Primary focus on screening and discussion of documentaries leading to development of culminating written project. Use of first quarter century of rock era (circa 1955–1980) as representative sample, but includes contemporary artists. P/NP or letter grading.

55. Songwriters on Songwriting. (4) (Formerly numbered 105.) 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 discuss their 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, 10 hours. Students work with UCLA faculty or staff in production of live concert events, in UCLA recording studio, or as part of media production team led by UCLA faculty and staff. 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 stu-
dents. Honors content noted on transcript. P/NP or letter grading.

95. Introduction to Community or Corporate In-
ternships in Music Industry. (4) Tutorial, eight hours.
Enter-level community or corporate internship for lower-
credit standing. Students must have completed 90 or fewer
units. Internship in supervised setting in community
agency or private business. Students meet on regular basis
with instructor and provide periodic reports
of supervised work. 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-divi-
sion students with the supervision of faculty mentor. Re-
dents must be in good academic standing and en-
roll 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

101. Seminar in Music Industry. (4) Seminar, four
hours; outside study, eight hours. Required of Music
Industry minors. Introduction to intellectual and theo-
retical frameworks that form Music Industry minor and
that shape music industry. The role of music in society
developed to analyze, understand, and perhaps judge
what happens out there, including how music busi-
nesses works in financial, legal, and artistic terms.

102. Music Industry Fundamentals. (4) Seminar,
three hours; outside study, nine hours. Introduction to
basic economics of creative industries, focusing on
unique ways music works as industry in U.S. and abroad.
Music industry has shifted but still is held in音乐
oligopolies, and where career opportunities for
musicians and other industry professionals will be
in next five to 10 years for students. Letter grading.

103. Music, Mind, and Brain. (4) Formerly num-
bered 103.) (Same as Neuroscience M170.) Seminar,
three hours; outside study, nine hours. Multidiscipli-
ary approach to understanding brain mechanisms
mediating music perception, performance, and cogni-
tion. Students’ natural interest in music serves as
springboard for learning basic concepts about theo-
ries of mind, and how brain works to determine per-
ception/production, emotion and meaning in music,
and musical creativity. Designed to help stu-
dents understand methodologies currently used to in-
vestigate brain-behavior correlates. Broad under-
standing of cognitive neuroscience is assumed. Introduc-
tion to fundamental principles in neurophysi-
ology, psychophysiology, and neuroanatomy. 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 relationships in entertainment busi-
ness and basic business practices. Exploration of
legal aspects of process of producing works in enter-
tainment field, from acquisition of rights and talent
through production and distribution. Letter grading.

104B. Legal and Business Aspects of Sound Re-
cordings. (4) Seminar, three hours; outside study and
research, nine hours. Exploration of legal and business
aspects of production and distribution of sound rec-
cordings. More detailed practical focus on legal as-
pects of sound recording itself, from initial assembly
of material to final distribution and collection of royal-
ties, with material covered also related to audio-vi-
sual recordings. Introductory presentation on contract,
copyright, licensing, record conceptions as background to
step-by-step process of securing agreements necessary for
production and commercial distribution of recordings.
Letter grading.

107A. Audio Technology for Musicians I. (4) Studio,
four hours; outside study, eight hours. Introduction to
basic acoustic principles, practical techniques, and
working procedures for equipment used in contempo-
rary music production, including microphones, mixers,
recorders, synthesizers, and sequencers. Basic sound
processing operations (equalization, compression,
distortion, reverberation). Operating principles of most
popular systems of music production software and
hardware. Letter grading.

107B. Audio Technology for Musicians II. (4) Studio,
four hours; outside study, eight hours. Enforced requi-
tions: course 107A. Examination of selected technolog-
ical elements in greater depth than in course 107A.
Letter grading.

108. Founding and Sustaining Performing Arts Or-
ganizations. (4) Seminar, four hours. Examination of
process of founding performing arts organizations, be-
ginning with inspiration to do so, clarifying organiza-
tion mission, and mechanics of becoming nonprofit
organizations; issues of funding, press relations,
finding appropriate venues, developing audience;
mechanics, legal and routine, of running arts businesses.
Letter grading.

107A. Legal and Business Aspects of Sound Re-
cordings. (4) Seminar, three hours; outside study, nine
hours. Legal and business aspects of sound record-
ing production and commercial distribution of recordings.
Letter grading.

112A. Introduction to Songwriting. (4) Formerly
numbered 112.) Seminar, four hours; outside study,
seven hours. Learning and employment of craft of
songwriting. Examination, analysis, and implementa-
tion of songwriting principles, from inspiration, ar-
raging, orchestrating, and recording techniques.
Letter grading.

112B. Songwriter’s Workshop. (4) Seminar, four
hours; outside study, eight hours. Enrollment by con-
sent of instructor. Workshop in contemporary song-
writing practices for intermediate to advanced song-
writer. Emphasis on collaboration, flexibility, and
writing within teams to master specific songwriting
challenges. All genres and styles of music accommoda-
ted. Letter grading.

113. Music Supervision. (4) Seminar, three hours.
In-depth role of music supervisor and creative, lo-
gistical, and budget considerations of music supervi-
sion. Development of theoretical and practical knowl-
edge, planning, organizing, and managing project
practice negotiating music requests and clearances.
Letter grading.

114. The Art of Music Production. (4) Lecture,
three hours; studio, two hours. Examination of techni-
quines, methods, and process of music production and larger
issues in art of making music. Students learn how to foster and capture performance and emotion in music
through creative and technical lens. Students learn the
artistic direction in studio and choices made in sound,
arangement, and application of technology. Letter
grading.

124. Music Industry Entrepreneurship. (4) Seminar,
three hours. Principals of entrepreneurship and funda-
mental business strategies approached through case
studies and project-based group assignments. Stu-
dents develop business plans, pitch them, and build
out structures for startups that focus on tech-
ology and innovation in music industry. Students are
couraged to make use of resources at MusicBiz,
MIEA, and startup.ucla.edu. Letter grading.

124. Music Industry Entrepreneurship. (4) Seminar,
three hours. Recommended requisite or corequi-
site: Musicology 13. Do it yourself (DY! as practical al-
ternative mode of organization for social justice ac-
tivism and nonprofit arts collectives. Ethical issues in
capitalism, labor issues, politics. How to work with
gender, class, race, and orientation. Students inter-
face with existing radical social justice/art organiza-
tions in Los Angeles area, and strive to facilitate real
change. Letter grading.

131. Forensic Musicology. (4) (Same as Musicology
M181.) Seminar, three hours. Survey of critical issues and recent develop-
ments in field of forensic application of musical
analysis to law of music copyright. Instructors
include professionals in music industry. Study of fun-
damentals of music analysis and copyright law, review of
music copyright infringement cases from both
legal and musicological perspectives, outlining of pro-
cedural aspects of copyright case, and defining of
working relationship between attorney and musicolo-
ist. Letter grading.

132. Music Industry. (4) (Same as Ethnomusi-
cology CM182, Music CM182, and Musicology
CM186.) Lecture, four hours; discussion, one hour;
outside study, seven hours. Limited to Ethnomusi-
cology, 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, begins with music pub-
lished in 18th century and continuing through develop-
ment of audio recordings to MTV and popular music
today. Letter grading.

138. Special Courses in Music Industry. (4) Sem-
inar, three hours; outside study. Special topics in
music industry for undergraduate students
taught on experimental or temporary basis. May be
repeated for credit with topic change. Letter grading.

139. Advanced Honors Seminars. (1) Seminar,
three hours. Limited to 20 students. Advanced topics in
undergraduate lecture course. Examination 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.

155. 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 aver-
age. 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 maximum of 8 units.
Individual contract with supervising faculty
member required. P/NP grading.

177. Individual Studies in Music Industry and Tech-
nology. (2 to 4) Tutorial, six to 12 hours. Limited to ju-
niors/seniors in Music Industry minor with minimum
cumulative 3.0 grade-point average. Individual stu-
dies program. Topic of study selected by student in
scheduled meetings to be arranged between faculty
member and student. Taught in groups of 10 stu-
dents with supervising faculty member.

Students dive into best practices of digital marketing
around the world, growing brand, finding target market
online, and engaging with right communities of prac-
tice to build their own connections and online portfolio
of collaborators. Letter grading.
The BA in Musicology appeals to undergraduates to gain a broad 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 undergraduates 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

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.

Preparation for the Major

Required: Musicology M6A, M6B, M6C, 12W, Music 20A, 20B, 20C, and 6 units (three terms) of performance organizations selected from Ethnomusicology 91A through 91Z, Music C185A through C186A, Musicology 28A through 28C, CM90T, or Music Industry 111; one lower-division humanities elective (minimum of 4 units; choose from the list of approved courses held in the school Office of Student Affairs).

Policies

Enrollment in Musicology M6A, M6B, M6C and Music 20A, 20B, 20C requires taking the Music Theory Placement Examination administered by the Music Department.

Transfer Students

Transfer applicants to the Musicology major with 90 or more units must complete one year of music theory 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.

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 elective, chosen from Musicology 160 through 185, 191A through 191P, 195 (if supervised by Musicology faculty), or an equivalent seminar course in ethnomusicology, music, or music industry (see the list of approved courses held in the school Office of Student Affairs; enrollments may be limited—check with the department or instructor); and the department capstone sequence, Musicology 187A, 187B, 187C.

Policies

Each course applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable).

Honors Program

The honors program is designed for Musicology majors who wish to carry out an extended independent research project that culminates in a departmental honors thesis of approximately 30 pages. The program gives qualified students the opportunity to work closely with individual professors on an in-depth supervised research and writing project.

All junior and senior Musicology majors who have completed a minimum of four upper-division musicology courses with a departmental grade-point average of 3.7 or better and an overall GPA of 3.0 or better are eligible to apply. Normally, the thesis must be completed during fall quarter of the senior year.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.7 or better in upper-division courses in the department and an overall GPA of 3.0 or better, and (3) complete at least one term of Musicology 198 (2 units) with a grade of A– or better on the resulting thesis.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative GPA of 3.9 or better in upper-division courses in the department and an overall GPA of 3.65 or better, and (3) complete at least one term of Musicology 198 (2 units) with a grade of A or better on the resulting thesis.
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 industry, business, and marketing plans, set of lesson plans, and critique of their work.

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, lecture-recital, business or marketing plans, set of lesson plans, 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 repertoires 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

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 production, or in voice to participate in a performance group, as required by the program.

Preparation for the Major

Required: Music 20A, 20B, 20C; Musicology M6A, M6B, M6C; 12W; and 4 units (two terms) of performance organizations selected from Ethnomusicology 91A through 91Z, Music C185A through C185D, C185F through C186A, Musicology 28A through 28C, CM90T, or Music Industry 111; one musicology or music industry elective, preferably from lower-division courses (minimum of 4 units).

Policies

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.

Transfer Students

Transfer applicants to the Music History and Industry major with 90 or more units must complete one year of music theory prior to admission to UCLA. Experience 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.

The Major

Required: Musicology 125A, 125B, 125C, 128, Music Industry 101, 102 or 112A or 112B, 195, supervised by a member of the Music Industry minor faculty, two additional upper-division music industry elective courses; and the Music History and Industry capstone sequence, Musicology 184A, 184B, 184C.

Policies

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 file a petition with the school Office of Student Affairs, 1642 Schoenberg Music Building. For more information, see the minor website.

The Minor

Required Lower-Division Courses (10 units): Two musicology courses with grades of C or better.

Required Upper-Division Courses (21 to 25 units): Musicology 101, one seminar course from 160 through 185 or 191A through 191P, one additional upper-division musicology course, and two additional upper-division ethnomusicology, music, musicology, or music industry courses (minimum 8 units).

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.

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Musicology

Lower-Division Courses

3. Introduction to Classical Music. (5) [Formerly numbered Music History 15.) Lecture, four hours; discussion, one hour. Exploration of history of opera from its origins in Florence to Carissima in Italy in early 17th century, through ages of Enlightenment and Romanticism, and ending with modern era of early 20th century. History of opera, biography of composers and singers, operatic conventions, plot, stagings, heme-neutics of opera, and musical style, with focus on learning appreciation of music of opera within rich context of its compelling history. P/NP or letter grading.

4. World Music. (5) [Formerly numbered Music History 16.) Lecture, four hours; discussion, one hour. Survey of world music, 2000 B.C. to present. Emphasis on historical context, with emphasis on historical context, musical meanings, and creation of tradition itself. P/NP or letter grading.

5. History of Rock and Roll. (5) [Formerly numbered Music History 25.) 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 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 Musicianship. (2–2–2) [Formerly numbered Music History M6A-M6B-M6C.) Lecture, four hours; discussion, one hour. 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, notation, and ear training to prepare students for later theory courses, participation in music ensembles, advanced study in music, and professional careers. Letter grading.

6. Film and Music. (5) [Formerly numbered Music History 7.) Lecture, four hours; discussion, one hour. History of music in 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.

7. History of Electronic Dance Music. (5) [Formerly numbered Music History 8.) Lecture, four hours; discussion, one hour. Survey of groove-based electrified dance music since 1960s pop and soul to present, covering disco, house, techno, ambient, rave, and jungle. Emphasis on interaction of technology, musical structures, psychoactive drugs, and club cultures to induce altered states of musical consciousness; production and (re)production of political and spiritual transformation; electronic dance music as new art music. P/NP or letter grading.

8. American Popular Song. (5) [Formerly numbered Music History 9.) 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) [Formerly numbered Music History 12W.) 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. Funk: Music, History, Subculture. (5) [Formerly numbered Music History 13.) Lecture, four hours; discussion, one hour. Developments in punk music in their historical and subcultural contexts. Survey of prepunk and punk music movements in 1960s, rise of punk in 1970s, and tracing of its expanding trajectories to present day. P/NP or letter grading.

19. Fiat Lux Freshman Seminars, (1) Seminar, one hour. Discussion of and critical thinking about topics of current musical importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


35. Introduction to Opera. (5) [Formerly numbered Music History 35.) Lecture, four hours; discussion, one hour. Exploration of history of opera from its origins in Florence to Carissima in Italy in early 17th century, through ages of Enlightenment and Romanticism, and ending with modern era of early 20th century. History of opera, biography of composers and singers, operatic conventions, plot, stagings, heme-neutics of opera, 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) [Formerly numbered Music History 60.) 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) [Formerly numbered Music History 61.) Lecture, four hours; discussion, one hour. History of music in Los Angeles, focusing on musical genres and styles to present. Music covered in many contexts. Exploration of music of Jews within many paths of discovery at UCLA. P/NP or letter grading.

70. American Folk Music and Politics. (5) [Formerly numbered Music History 70.) Lecture, four hours; discussion, one hour. Historical and cultural study of American folk music, with special attention to music by and for working-class, poor, and marginalized Americans from the 19th century to the present. Credit for both courses 70 and 170 not allowed. P/NP or letter grading.

72. Sacred Music. (5) [Formerly numbered Music History 72.) Lecture, four hours; discussion, one hour. Study of liturgies 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) [Formerly numbered Music History M73.) (Same as Ethnomusicology M73.) Lecture, four hours; discussion, one hour. Survey of popular music in religious traditions from late 1960s to present, with emphasis on social meanings of musical practices. Letter grading.

75. History of Jazz. (5) [Formerly numbered Music History 75.) Lecture, four hours; discussion, one hour. Historical and analytical study of jazz styles from late 19th to mid 20th century. Emphasis on major performers and their work. P/NP or letter grading.

93. Jewish Music and the American Experience. (5) [Formerly numbered Music History 93.) Lecture, four hours; discussion, one hour. Survey of Jewish music in the Americas. P/NP or letter grading.

131. Jewish Music and the American Experience through Music. (5) [Formerly numbered B6S.) Lecture, three hours; discussion, one hour. In synagoge and on stage, and from LP recordings to YouTube, Jews in America have varied musical experi-

M62. Music and Holocaust: Individual Experience. (5) (Same as Jewish Studies M62.) Lecture, three hours; discussion, one hour. Roles of music during Holocaust. Are as various 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 European musical culture under Nazi regime (1933–45), focusing on how individuals interacted with music throughout Holocaust. Study of some of newest developments in Holocaust music research, including role American and European non-governmental organizations played in creation of artistic hubs in campus of southern France. Exploration of cultural representation of role of music in society’s collective memory. Letter grading.

88. Sophomore Seminars: Music History. (2) (Formerly numbered Music History 88.) Seminar, two hours. Designed for sophomore Musicology majors or students interested in taking Musicology majors introduction to music history as academic discipline, with particular emphasis on musicology at UCLA. Study of music and its history and consideration of theoretical issues central to musicology as it is practiced today, including gender and sexuality, music and politics, race, popular music studies, and jazz studies. Letter grading.

M101. Issues and Methods in Musicology. (4) (Formerly numbered Music History 101.) Seminar, three hours. Introduction for Musicology minors to practical aspects and fundamental issues of musicology as academic discipline. How musicologists work about establishing, editing, performing, analyzing, and interpreting musical texts. Exposure to kinds of activities, philosophies, and styles of scholarship that continue to shape field of musicology. Letter grading.

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 study music in different modes. Students learn certain repertoire, refine it, and bring it to concert performance. Students critically engage musical literacies and notion of social form that forms basis of musical notation. Drawing from American 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.

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 include: introduction to disability studies; exploring work and creative strategies of disabled 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.

M25A. Music, History, and Culture: Era of Church and Patron. (5) (Formerly numbered Music History 125A.) Lecture, four hours; discussion, one hour. Requisite: course M101 concurrently. 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 church and court patronage, through selected topics, repertoires, and analytical techniques. Letter grading.

M25B. Music, History, and Culture: Era of Empires and Marketplaces. (5) (Formerly numbered Music History 125B.) Lecture, four hours; discussion, one hour. Requisite: course M101 may be taken concurrently. 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.

M25C. Music, History, and Culture: Modern and Postmodern Era. (5) (Formerly numbered Music History 125C.) Lecture, four hours; discussion, one hour. Requisite: course M101 may be taken concurrently. 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 modern and postmodern eras, through selected topics, repertoires, and analytical techniques. Letter grading.

M136. Music and Gender. (5) (Formerly numbered Music History 160.) Seminar, four hours; discussion, one hour. Requisite or corequisite: M62. Analysis of music as both medium of expression and symbol. Consideration of impact of recording technologies (gramophone, tape recorder, Walkman, sampler, broadcast media (radio, television, MTV, Internet), and global capitalism (record labels, advertising, Muzak) on way we consume and are consumed by music. How music functions and misfunctions on records, under movies, behind ads, and in semantic fabric of everyday life. Letter grading.

M137. Lesbian, Gay, Bisexual, Transgender, and Queer Perspectives in Pop Music. (5) (Formerly numbered Music History 161.) Seminar, four hours. Consideration of impact of recording technologies (gramophone, tape recorder, Walkman, sampler, broadcast media (radio, television, MTV, Internet), and global capitalism (record labels, advertising, Muzak) on way we consume and are consumed by music. How music functions and misfunctions on records, under movies, behind ads, and in semantic fabric of everyday life. Letter grading.

M140. Music, Media, and Consumer Society. (4) (Formerly numbered Music History 140.) Lecture, four hours. Consideration of impact of recording technologies (gramophone, tape recorder, Walkman, sampler, broadcast media (radio, television, MTV, Internet), and global capitalism (record labels, advertising, Muzak) on way we consume and are consumed by music. How music functions and misfunctions on records, under movies, behind ads, and in semantic fabric of everyday life. Letter grading.

M163. Bach: Study of Selected Works. (5) (Formerly numbered Music History 163.) Seminar, two hours. Preparation: ability to read music and engage in melodic, harmonic, and formal analysis. Enforced corequisite: attendance, but not enrollment, in course 64 lecture. Limited to Musicology majors and minors. Examination of Bach’s music in greater depth. Credit for both courses 63 and 162 not allowed. Letter grading.

M164. Bach: Study of Selected Works. (5) (Formerly numbered Music History 163.) Seminar, two hours. Preparation: ability to read music and engage in melodic, harmonic, and formal analysis. Enforced corequisite: attendance, but not enrollment, in course 64 lecture. Limited to Musicology majors and minors. Examination of Bach’s music in greater depth. Credit for both courses 63 and 162 not allowed. Letter grading.


167. bum


166. Medievalism and Music History. (Formerly numbered Music History 166.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 72. 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 revivals. Credit for both courses 66 and 166 not allowed. Letter grading.

168. Medievalism and Music History. (Formerly numbered Music History 168.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 68. Lecture course in seminars, including discussion of selected topics associated with Beethoven. Credit for both courses 68 and 168 not allowed. Letter grading.

170. Beethoven: Study of Selective Works. (Formerly numbered Music History 170.) 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 works. Credit for both courses 70 and 170 not allowed. Letter grading.

172. Selected Topics in Sacred Music. (Formerly numbered Music History 172.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 72 lecture. Exploration of connections of music, religion, and popular culture among American Christians. Credit for both courses 72 and 172 not allowed. Letter grading.


CM181. Forensic Musicology. (4) (Same as Ethnomusicology M173.) Seminar, three hours. Credit for both courses 173 and M173 not allowed. Letter grading.


188. Special Courses in Music History. (4) (Formerly numbered Music History 188.) Lecture, four hours. Special topics in music history for undergraduates taught on temporary basis. Consent of instructor required. Credit may be repeated for credit. P/NP or 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 in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, current assignments, and beginning to prepare 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 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. Corequisite: supervised tutorial research in seminar setting with one or more faculty members. 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. May be repeated for credit. Directed tutorial research in seminar setting with one or more faculty members. May be repeated for credit. 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.

191A. Internship in supervised setting in community agency. May include introduction to discipline through discussion of readings and lectures on current topics in field, with focus especially on its practice at UCLA, and addressing research methodologies and development of bibliographic control. Normally taken in junior year. P/NP grading.

191D. Music History Performance/Analysis Seminars for Majors. (2) (Formerly numbered Music History 191D.) Seminar, two hours. Limited to Musicology majors. Introduction to discipline through discussion of readings and lectures on current topics in field, with focus especially on its practice at UCLA, and addressing research methodologies and development of bibliographic control. Normally taken in junior year. P/NP grading.

193C. Music History Journal Club Seminars for Majors. (2) (Formerly numbered Music History 193C.) Seminar, two hours. Limited to Musicology majors. Introduction to discipline through discussion of readings and lectures on current topics in field, with focus especially on its practice at UCLA, and addressing research methodologies and development of bibliographic control. Normally taken in junior year. P/NP grading.

193D. Community Internships in Music. (2 to 4) (Formerly numbered Music History 193D.) Tutorial, one hour; fieldwork, 10 hours. Limited to juniors/seniors. Internship in supervised setting in community agency related to music industry. Students meet on regular basis with instructor and provide periodic reports of their experiences and final project. May be repeated for credit. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Music History. (2 to 4) (Formerly numbered Music History 197.) 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.

198. Honors Research in Music History. (2 to 4) (Formerly numbered Music History 198.) Tutorial, one hour. Preparation: completion of minimum of four upper-division music history courses with departmental grade-point average of 3.5 or better and overall GPA of 3.0. Limited to junior/senior Musicology majors. One- to two-term independent research study problem under supervision of faculty member, culminating in department honors thesis of approximately 25 pages. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Music History. (1 to 4) (Formerly numbered Music History 199.) Tutorial, one hour. Preparation: 3.0 grade-point average. Limited to junior/senior Musicology majors. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Introduction to Music Scholarship. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Introduction to history of different fields of music scholarship (with strong focus on musicology) and to selected debates in those fields. Practical tools for research, logic and structured arguments, writing, referencing and critique, historiography, rhetoric, 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 practice, with strong emphasis on critical, cultural, and social theory. May include introduction to

musical style and evolving history of American music and culture in 20th century. Credit for both courses 65 and 165 not allowed. Letter grading.
social theory, materialist theories of culture, postcolonialism, critical theory, or overview of cultural theory or of group of theories selected by instructor, including feminism, performance studies, sociology, historiography, urban studies, anthropology, philosophy, psychoanalysis, phenomenology, gender, race, and sexuality studies, lesbian, gay, bisexual, transgender, and queer studies, disability studies, and so on. Introduction to set body of theory in its relation to study of music, and concept evaluation.

200C. Music Aesthetics, Analysis, and Philosophy. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Exploration of philosophical, ethical, aesthetic, and/or analytical perspectives on music to gain insight into selected analytical and philosophical approaches to phenomenon of music and to acquire skills in analyzing and interpreting variety of repertories. Letter grading.

M201. Repertory and Analysis. (2) Same as Music M201. Seminar, two hours. Required or corequisite: course 200A. Exploration of defined repertory through readings and analysis. Specific topics vary. May be repeated for credit. S/U 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. Audit Seminar: Analytical/Repertoire Topics. (2) Seminar, two hours. Required 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 245; concurrent enrollment in both courses not allowed. S/U grading.

248. Seminar: Special Topics in Musicology. (4) Seminar, three hours. Exploration of topics in musicology through variety of approaches that may include historical, analytical, critical, or philosophical 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. Required 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 250; 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. Audit Seminar: Historical Topics. (2) Seminar, three hours. Required 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 of most recently developed methodologies for undertaking ethnographic or anthropological study of sound, including recording and mapping soundscapes. Letter grading.

261. Topics in Performance Practice. (4) Seminar, three hours. Designed for graduate students. Investigation of primary source readings in performance practice across history of Western music; analysis of sound recordings and practical applications in class demonstrations. May be repeated for credit. Letter grading.

C281. 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 professionals in music industry. Study of fundamentals 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 18th 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 the graduate 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. Special course dealing with preparation for candidacy. Limited to graduate students. May be repeated for credit. S/U or letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged by semester: 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.

C490T. Early Music Ensemble. (4, Activity, 4 hours. Preparation: audition. Group performance of Western vocal and instrumental music from historical periods prior to 16th century. Instruments may be used at instructor’s discretion. May be repeated for credit without limitation. May be concurrently scheduled with course CM507T. S/U or letter grading.

495. Introductory Practicum for Teaching Apprentices in Musicology. (4) Seminar, three hours. Preparation: appointment as teaching apprentice in Music or Musicology 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.

596. Directed Individual Studies in Musicology. (2, 4, or 6) Tutorial, to be arranged. Limited to graduate students. S/U or letter grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 or 4) Tutorial, to be arranged. Preparation: completion of all MA or PhD course and language requirements. Limited to graduate students. S/U grading.

599. Guidance of PhD Dissertation. (4, 8, or 12) Tutorial, to be arranged. Preparation: advancement to PhD candidacy. Limited to graduate students. May be repeated for credit. S/U grading.
and transfer students. All have leadership laboratories that teach leadership and management skills.

Active duty obligation following commissioning varies depending on branch of service and designated career field or occupational specialty.

Scholarships

NROTC 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 between $250 and $400 per month during the academic year. Applications for scholarships may be obtained online or by calling 800-628-7682. Completed applications should be submitted no later than December 31 for the fall term. Two or three-year scholarship applications may be obtained from the Naval Science Department and should be submitted no later than the end of the spring term.

Navy/Marine Corps ROTC Program

The Department of Naval Science provides professional training for students leading to an active duty commission at graduation in the U.S. Navy or Marine Corps. Through the NROTC, scholarship students receive full tuition, fees, books, and subsistence pay of $250 to $400 per month. Non-scholarship students may apply to participate as members of the midshipman battalion under the NROTC College Program and, if selected for advanced standing prior to their junior year, may receive an active duty commission at graduation. Because of the rapid development of highly technical ship systems, aviation, and other military equipment, science and engineering majors are highly desirable; however, Navy/Marine Corps scholarships are currently available to students pursuing any major offered by UCLA, as long as they agree to complete basic technical requirements. In addition to UC and UCLA requirements, Navy option midshipmen must complete 30 units and Marine Corps option midshipmen, 12 units of naval science courses, physical fitness tests, and summer training, each about four to six weeks long. Both Navy and Marine Corps option students must also pass a swimming test. Naval science courses are open to UCLA students who are not in the program with consent of instructor and demonstrated interest in the Navy/Marine Corps and related fields, such as engineering, navigation and naval operations, history, and management.

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 sopho-

more 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 Science. 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.

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 officers' 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

378 Kaplan Hall
Box 951511
Los Angeles, CA 90095-1511

Near Eastern Languages and Cultures

310-825-4165
Department e-mail

Kathlyn (Kara) M. Cooney, PhD, Chair

Faculty Roster

Professors

Khaleed M. Abou El Fadi, JD, MA, PhD (Omar and Azemeralda All Endowed Professor of Islamic Law)
Carol A. Bakhos, PhD
Aaron A. Burke, PhD (Kershaw Professor of Ancient Eastern Mediterranean Studies)
Kathlyn (Kara) M. Cooney, PhD
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, Islamic 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, Islamic, 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

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

Preparation for the Major

Policies
Each course must be taken for a letter grade.

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.

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, 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, 125B, M125C, 175, C177, M179, Anthropology 110, CM110Q, 111, 112R, 130, M150, English 111A, 111B, 111C, Greek 130, Hebrew 125, 130, 135, 188FL, Study of Religion M186A, M186B, M186C, Semitics 130, 141, 142.

Policies
A maximum of 8 units of special studies courses (197, 198, 199) approved by the department may be applied toward the major. Each course must be taken for a letter grade.

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, 310-825-4995; for UCLA-affiliated excavations, contact the departmental academic counselor at 310-825-4165.

Arabic BA

Learning Outcomes
The Arabic major has the following learning outcomes:
Learning Outcomes

• Demonstrated written and oral mastery of the Arabic language
• Demonstrated knowledge of other Arabic dialects such as Iraqi, Egyptian, etc.
• Demonstrated specific skills and expertise, including research, analysis, and writing
• Ability to read texts in Arabic, and to analyze the language and cultural context
• Identification, evaluation, and analysis of historical monuments, periods in time, vocabulary, concepts, and historical figures

Preparation for the Major

Required: Arabic 1A, 1B, and 1C, or 20A, 20B, and 20C, or equivalent, and Iranian 55 or M60.

Preparation for the Major

Required: Iranian 1A, 1B, and 1C, or 20A, 20B, and 20C, or equivalent, and Iranian 55 or M60.

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.

The Major


Policies

A maximum of two Iranian 197 or 199 courses (8 units total) may be applied toward the major.

Jewish Studies BA

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

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, Armenian, Hebrew) in consultation with the department.

Transfer Students

Transfer applicants to the Jewish Studies major with 90 or more units must complete the following introductory course prior to admission to UCLA: one social, cultural, and religious institutions of Judaism course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major


Students are encouraged to take a research tutorial within Jewish Studies 197 or 199.

Policies

A maximum of two 197 or 199 courses (8 units total) may be applied toward the major.

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.

Middle Eastern Studies BA

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

Preparation for the Major

Required: Two courses selected from Ancient Near East 10W, 12W, 14W, 15, 15W, M60, History 9D, Iranian 55, M60, Islamic Studies M20, Jewish Studies M10, Middle Eastern Studies M50A, M50B, M50CW, Near Eastern Languages M20, 65, and demonstrated proficiency equivalent to level 3 at UCLA in one modern Middle Eastern language (Arabic, Armenian, Hebrew, Persian, Turkish) or through a departmental language placement examination. Students selecting ancient languages (including Akkadian, Aramaic, Coptic, Egyptian, Old or Middle Iranian, Sumerian, Syriac) are not re-
required to take a modern elementary Middle Eastern language.

**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 modern middle Eastern language.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**The Major**

Students must complete 11 courses as follows:

**Required Core Courses:** A total of six courses, including at least two from three of the following four areas:


**Policies**

Students may petition to substitute a core or elective course with a departmental 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.

**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.

**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 (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. With consent of the undergraduate adviser, two of the five courses may be taken outside the department. 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. Other courses, including extra-departmental courses, may be applied with consent of the adviser.

**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.

**Arabic and Islamic Studies Minor**

The Arabic and Islamic Studies 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 Arabic language and literature and Islam.

**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, 310-825-4165.

**The Minor**

**Required Upper-Division Courses (35 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 ap-
Required Lower-Division Courses (10 to 11 units): 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.

Policies
A maximum of 4 units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the minor. No course 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.

Middle Eastern Studies Minor
The Middle Eastern Studies minor is designed for students who wish to augment their major program in the College of Letters and Science with a group of related courses from various linguistic, literary, archaeological, and historical disciplines of the Near East, from ancient Egypt, Mesopotamia, and biblical studies to the modern Arabic, Armenian, Iranian, Jewish, and Turkish world.

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, 310-825-4165.

The Minor

Required Upper-Division Courses (20 units): A total of five courses, including at least three from one of the following four areas:


mation of sacred space as reflected by literary and ar-}
{chaological evidence through examination of testi-
{mony of artifacts, architectural monuments, and in-
{cography in relation to written sources. Study of cre-
{ation of mythic Jerusalem through event and expe-
{rience. 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 Anci-
{ent Near East, China, and Meso-America. Satisfies Writing II requirement. Letter grading.

15. Women and Power in Ancient World. (5) Le-
cure; four hours; discussion, one hour. Not open for credit to students with credit for course 15W. Ex-
{amination of how feminine power confronts masculine dominance on a global scale 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 denied their femininity in dress and manner, effectively androgynizing themselves or pre-
tending to be men so that their femininity would not be obstacle to political rule. Many women achieved the throne at end of dynasties after male line had run out entirely, or in midst of civil war when patrilineal suc-
cessions were in disarray. Women were sometimes only effective leaders left in drawn-out tainting of imperial aggression. No women were able to gain reigns of power through their bloodlines alone. Women’s power was compromised from outset. Ex-
{amination of roots and results of this political in-
equality. P/NP or letter grading.

15W. Women and Power in Ancient World. (5) Le-
cure; four hours; discussion, one hour. Requisite: En-
{glish Composition 3. Not open for credit to students with credit for course 15W. Ex-
{amination of how feminine power confronts masculine dominance within com-
p lex 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 denied their femi-
ninity in dress and manner, effectively androgynizing themselves or pretending to be men so that their femi-
ninity would not be obstacle to political rule. Many women only gained throne at end of dynasties after male line had run out entirely, or in midst of civil war when patrilineal suc-
cessions were in disarray. No women were able to gain reigns of power through their bloodlines alone. Women’s power was compromised from outset. Ex-
{amination of root causes and results of this political inequality. 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 interest in complex social, cultural, and economic issues. Taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Egyptian Hieroglyphs. (5) Lecture, five hours. Basic introduction to language and hieroglyphic script of ancient Egypt. Common vocabulary and grammar of hi-
eroglyphic writing and Egyptian grammar, deciphering standard inscriptions, and using hieroglyphic text ed-
iting software to type hieroglyphs on computer. Stu-
dents are portfolio of texts and translation hiero-
glyphic inscriptions on common museum objects, P/
NP or letter grading.

M50A. First Civilizations. (5) Same as Middle Eastern Studies M50A. Lecture; three hours; discus-
sion, one hour. Survey of great civilizations of ancient Near-East—Egypt, Israel, and Mesopotamia—with at-
tention to emergence of writing, monotheism, and urban societies. Letter grading.

M50B. Origins of Judaism, Christianity, and Islam. (5) Same as Middle Eastern Studies M50B and Rei-
gion M50.) 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.

M60. Achaemenid Civilization and Empire of Alex-
ander. (5) (Same as History M60 and Iranian M60.) Lecture; three hours; discussion, one hour. Survey of period from circa 600 to 300 BCE, rise and fall of Acha-
emenid Persia, first world empire, which was only effective leaders left in drawn-out tainting of imperial aggression. No women were able to gain reigns of power through their bloodlines alone. Women’s power was compromised from outset. Ex-
{amination of root causes and results of this political in-
equality. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (su-
ervised 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 for credit with consent of instructor. Concur-
rently scheduled with course C267A. P/NP or letter grading.

CM101B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) (Same as Art History M110B.) Lecture; three hours. Study of archi-

cecture, sculpture, painting, and minor arts from New Kingdom to Greco-Roman period. Concurrently scheduled with course C267B. P/NP or letter grading.

M101C. Ancient Egyptian Temple and City of The-
bes. (4) (Same as Art History M110C.) Lecture; four hours; fieldwork, one hour. Focus on ancient temples of city of Thebes (modern day Luxor). The 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 throughout all of ancient Egypt. Investigation of ritual linking of temples on Nile’s eastern and western banks through festivals processions, chronological changes in function and form, and political and religious diversity in large, heterogeneous states. Satisfies Writing II requirement. Consists of ethnographic study and participation in excavations, preservation, and management of archaeological sites. Offered by arrangement. Letter grading.
121A-121B-121C. Intermediate Ancient Egyptian Readings. (5–5–5) Lecture; three hours. Requisite: course 120C. Course 121A is requisite to 121B, which is requisite to 121C. Thematic readings in ancient Egyptian historical, religious, and literary texts. May be repeated for credit.

122. Elementary Ancient Egyptian: Intensive. (12) Lecture, 12 hours; discussion, 10 hours. Open to students who have learned, from whatever source, enough Egyptian to qualify for more advanced courses. readings: courses 120A, 120B, and 120C. Introduction to hieroglyphic script and phonology of Middle Egyptian, with emphasis on verbal systems, pronunciation, reading, and grammar. Offered in summer only. P/NP or letter grading.

C123A-C123B. 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. Concurrently scheduled with courses C223A-C223B. P/NP or letter grading. C123A. Devoted to learning Coptic alphabetic, grammar, and vocabulary (Sahidic dialect), with particular emphasis on historical linguistics. C123B. Requisite: course C123A. Introduction to a 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 (Bohairic, Fayumic, Akhmimic).

124. Middle Egyptian Technical Literature. (4) Lecture, three hours. Requisite: course 121C. Reading Middle Egyptian technical literature: homilies, medical, veterinary, mathematical, and astronomical texts included. P/NP or letter grading.

125A. Digital Cultural Mapping Course A: Place, Time, and Digital World. (4) Lecture, three hours; discussion, one hour. Introduction to and 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 effectively, responsibly, and heuristically use technology in digital cultural mapping projects. Analysis of different forms of visual presentation, with focus on data representation through mapping, reasoning, and argumentation to learn to critically assess map-based presentations. Tracing of history of mapping and its applications, and how mapping has always been connected with societal structures, politics, economics, and culture because maps do not merely represent reality but produce it. Students will learn how to think about it. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation.

M125B. Digital Cultural Mapping Course B: Google Earth, Geographic Information Systems, Hypertecities, and Timelines. (4) Same as Architecture and Urban Design M125C. Laboratory, three hours; fieldwork, one hour. Enforced requisite: course M125B or Architecture and Urban Design M125B. Participation in 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 a dataset through the 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 technological/methodological issues inherent to type of GIS used for investigation. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation.

M125C. Digital Cultural Mapping Core Course: Summer Research. (4) Same as Architecture and Urban Design M125C. Laboratory, three hours; fieldwork, one hour. Enforced requisite: course M125B or Architecture and Urban Design M125B. Participation in 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 a dataset through the 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 technological/methodological issues inherent to type of GIS used for investigation. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation.

M130. Ancient Egyptian Religion. (5) Same as Religion M132.) Lecture, three hours; discussion, one hour. Introduction to religious beliefs, practices, and social concepts 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. Enforced requirement: a course in Egyptian. REQS: Semiotics 140A, 140B. Elementary grammar and reading of royal inscriptions, letters, and administrative texts from Ur III period. P/NP or letter grading.

M135. Religion in Ancient Israel. (5) Requisite: M130. Lecture, three hours. Survey of various ancient Israelite religious beliefs and practices, their origins, and development, with special attention to diversity of religious practice in ancient Israel and Canaan during 1st millennium BCE. P/NP or letter grading.

M140A-140B-140C. Elementary Sumerian. (4–4–4) Lecture, three hours; discussions, two hours. Requisites: Semiotics 140A, 140B. Elementary grammar and reading of Royal inscriptions, letters, and administrative texts from Ur III period. P/NP or letter grading.

M150. Heroes, Gods, and Monsters: Literature and Epic in Mesopotamia. (4) Lecture, three hours. Survey of literary texts and traditions in 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 production of first millennium BCE Epic of Gilgamesh. Discussion of texts, their narratives, and their divine and human actors. Involves students in the form (Sumerian and Akkadian) texts and religious, and cultural roles of different texts. P/NP or letter grading.

M150B. Survey of Ancient Near Eastern Literatures in Egypt. (4) Lecture, three hours. Survey of literary traditions in study to ancient Egypt’s intellectual history and trace transformations in its construction of cultural identity. Topics include invention of writing, auto-biography, wisdom texts, narratives, royal inscriptions, and hymns. Discussion of various texts (such as narratology. May be taken independently for credit. P/NP or letter grading.


M162. Archaeology, Identity, and Bible. (5) Lecture, three hours; discussion, one hour. Introduction of archaeological record of southern Levant (ancient Israel) from the Early Bronze Age through Iron Age Period ca. (2500–332 BCE) in combination with current understandings of genre, authorship, and historical value of Hebrew Bible. Ancient Israelite identities are traced through combination of archaeological and textual sources. Social, religious, and political traditions of an-
cient Israel and Judah are interpreted in context of both earlier 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 environments and preservation of various biblical identities. Introduction to theoretical and methodological issues involving historical archaeology of ancient Israel and Levant, and possibilities for investigating potential of identity in archaeological record.

CM163. Archaeology of Iran. (4) (Same as Iranian CM163.) Lecture, three hours. Designed to introduce students to Iranian archaeology from prehistoric through Achaemenid times. Concurrently scheduled with course CM259. P/NP or letter grading.

C165. Egyptian Archaeology. (4) Seminar, three hours. Opportunity to research aspects of topics in ancient Egyptian art, architecture, and religious and social roles of ritual experts 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.

M166. Art and Death in Ancient Egypt. (4) (Formerly numbered 166.) (Same as Art History M160D.) 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.

M167. Magic in World History. (4) (Same as Classics M167.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: Classics 10 or 20. Exploration of art of influencing natural conditions by occult forces 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 magical spells, literary texts about magic and magicians, and artifacts such as amulets and ritual implements. P/NP or letter grading.

M168. Introductory Hittite. (4) (Same as Indo-European Studies M168.) Lecture, two hours; recitation, one hour. 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 in translation. P/NP or letter grading.

CM169. Introduction to Archaeological Sciences. (4) (Same as Anthropology CM110Q) Lecture, two hours. Basic understanding of newly introduced methods and techniques throughout field of archaeology to implement them and to appreciate and evaluate results of their application. Students bedded them in their scholarly publications or theoretical models. Systematic instruction in digital data management and mining, scientific analysis of materials, and use of computer graphic, statistical, and visual presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM259. 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 literary, historical, and religious approaches to Bible study. Survey of history of interpretation from antiquity to present. P/NP or letter grading.

175. Conceptions of Race in Ancient Egypt. (4) Lecture, three hours; discussions, one hour. Exploration of how racial hierarchies are created and maintained within context of ancient Egyptian culture. Race of ancient Egyptians is still at stake and tied to larger issues of race, ethnicity, and oppression. Examination of modern issues invites comparison with conception of race in ancient world, which was not necessarily equivalent to our own. By consulting diverse group perspectives, including those of early scholars, contemporary anthropologists, Africentrists 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 C177. Variable Topics in Ancient Near East. (4) Lecture, three hours; discussion, one hour. Variable topics vary from semester to semester. 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 History M259.) 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, 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 museum 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.

M180D. Religions of Ancient Near East. (4) (Same as History M180D and Religion M180D.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: Classics 10 or 20. Main polytheistic systems of ancient Near East, with emphasis on Mesopotamia and Syria and with reference to religion of ancient Israel. Varying concepts of gods, prayer and cult, magic, wisdom, and moral conduct. 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.


M201. Archaeological Research Design. (4) (Same as Anthropology M200.) Seminar, three hours. Requisite: Anthropology M201A, M201B. How to design archaeological projects in preparation for MA thesis or PhD phase. Students do exploratory research, theoretical search 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. 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.

M202. Topics in Ancient Near Eastern History. (4) (Same as History M210 and M210.) Seminar, three hours. Varying topics on Elamite, Achaemenid, Ar- sacid, and Sassanian history. May be repeated for credit. S/U or letter grading.

204. Late Egypt and the Roman Period. (2 to 4) Lecture, three hours. Requisites: 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 requisites: 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.

229. Seminar: Ancient Egypt. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

229A-221B. Demotic. (4–4) Lecture, three hours. Requisite: course 121C. Course 221A is prerequisite 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. Concurrently scheduled with courses C123A-C123B. P/NP or letter grading. C223A. Devoted to learning Coptic alphabet, grammar, and vocabulary (Sahidic dialect), with particular emphasis on historical linguistics. C223B. Requisite: 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 (Bohairic, 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 context 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 CM163. 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; laboratory, one hour. Selected topics in analysis and interpretation of archaeological finds in museum collections. Students work with objects in Heermanek Collection of Los Angeles County Museum of Art. S/U or letter grading.

263. Seminar: Egyptian Monuments. (4) Seminar, two to four hours. Selected monuments in ancient Egypt, including Delta, Nile Valley, desert sites, wadis, oases, and border regions. Architecture and decoration of temples and tombs, statutory and monuments, settlement and use history, text translation of appropriate Near Eastern Languages and Cultures / 673
documents, including stelae, monumental inscriptions, or pertinent written 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 embedded cultural 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.

266. Egyptian Archaeology. (4) 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 C165. S/U or letter grading.

C266. Egyptian Archaeology. (4) Seminar, three hours. Study of architecture, sculpture, painting, and minor arts during Predynastic period and Old Kingdom. May be repeated for credit with consent of instructor. Concurrently scheduled with course CM101A. S/U or letter grading.

C267B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts from New Kingdom to Greco-Roman period. Concurrently scheduled with course CM101B. S/U or letter grading.

CM269. Introduction to Archaeological Sciences. (4) (Same as Anthropology CM210Q.) 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 bioarchaeological techniques), and visual presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM169. S/U or letter grading.

270. Old Egyptian. (4) Seminar, three hours. Enforced requisites: courses 102A, 102B, 102C, or the year of Introductory Middle Egyptian. Advanced reading class in Old Egyptian, earliest of five Egyptian language phases, to prepare students for independent research on Egyptian texts dating to Old Kingdom (circa 2600 to 2100 BCE). Through close reading of texts in original language and original format, students learn grammar, orthography, and phraseology of Old Kingdom texts as well as tools and methods of epigraphy. Focus on tomb biographies, royal edicts, and Pyramid Texts. Letter grading.

C277. Variable Topics in Ancient Near East. (4) Lecture, three hours; discussion, one hour. Variable topics: content varies from term to term. May be offered in specific term. Concurrently scheduled with course C177. 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.


Arabic

Lower-Division Courses

1A-1B-1C, 1A-1B-1C. Elementary Standard Arabic. (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 Arabic. Introduction to formal Arabic (modern standard Arabic), including listening, speaking, reading, and writing. P/N/P or letter grading.

8. Elementary Standard Arabic: Intensive. (12) Lecture, ten hours; discussion, ten hours. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Intensive course equivalent to courses 1A, 1B, and 1C. Introduction to fundamentals of standard Arabic, including pronunciation, grammar, and Arabic 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 critical inquiry in the humanities and the social sciences. Concurrently scheduled as adjunct to lower-division lecture course. 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 assessment criteria led by the course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N/P 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 of greater depth through supplemental readings. P/N/P or letter grading. 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/N/P grading.

Upper-Division Courses

102A-102B-102C. Intermediate Standard Arabic. (4–4–4) Lecture, four hours. Enforced requisite: 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/N/P or letter grading.

103A-103B-103C. Advanced Arabic. (4–4–4) Lecture, four hours. Enforced requisites: 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/N/P or letter grading.

105. Introduction to Qur’anic and Islamic Arabic. (4) Lecture, three hours. Requisite: courses 1A, 1B, 1C. Introduction to Arabic used in Qur’an, Hadith (traditions of Prophet Muhammad), and early Islamic literature (biographies of Prophet and historical narrators). P/N/P or letter grading.

M106. Qur’an. (4) (Same as Religion M108.) Lecture, three hours. Introduction to Qur’an, 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 law, and Qur’an in contemporary discourses 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. Letter grading.

597. Islam in West. (5) (Same as Islamic Studies M107 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 the development of selected Muslim communities in West. Exposure to diverse expressions of Islam through independent research on Muslim communities and institutions in U.S. Development of strategic writing and speaking skills. P/N/P or letter grading.

108. Summer Intensive Intermediate Arabic. (12) Lecture, and discussion, 20 hours. Enforced requisite: course 1A. Introduction to spoken Arabic, including listening, speaking, reading, and writing. Offered in summer only. P/N/P or letter grading.

M110. One Thousand and One Nights/Al Layla Wa-Layla. (4) (Same as Comparative Literature M113.) Lecture, three hours. Introduction to One Thousand and One Nights 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 formally known as Arabian Nights, including history of its translation, contemporary oral performances of tales in Arabic-speaking world, literary emergence of vernacular language in relation to classical Arabic, and Western appropriations of tales in music, film, and novels (Ravel, Rimsky-Korsakov, Barth, Poe, and Walt Disney). P/N/P or letter grading.

111A-111B-111C. Elementary Spoken Egyptian Arabic. (4–4–4) Lecture, three hours. Enforced requisite: course 1C or 8. Concurrently scheduled with course CM111A. S/U or letter grading.

111B-112A-112B-112C. Advanced Spoken Egyptian Arabic. (4–4–4–4) Lecture, three hours. Study of Egyptian colloquial Arabic for heritage speakers or students who have completed courses 1A, 1B, 1C. P/N/P or letter grading.

115. Studies in Arabic 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, Levantine, North African, or Gulf Arabic. May be repeated for credit. P/N/P or letter grading.

116A-116B-116C. Elementary Iraqi Arabic. (5–5–5) Lecture, five hours. Course 116A is requisite to 116B, which is requisite to 116C. Introduction to dialect of Arabic spoken in contemporary Iraq, with emphasis on conversational proficiency. Recognition and production of sounds of Iraqi Arabic and basic vocabulary, grammar, idiomatic expressions, and relevant cultural background through dialogues and other conversational exercises. P/N/P 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. Letter grading.

M123. Oral Literacy and Performance of Arab World. (4) (Same as Comparative Literature M123.) Lecture, three hours. Knowledge of Arabic not required. Introduction to study of living oral traditions of troubadours, storytellers, oral poets, and performers in Arabic-speaking Middle East. P/N/P or letter grading.
130. Classical Arabic Texts. (4) Lecture, four hours. Requisite: course 103C. Readings from premodern literary texts, with grammatical and syntactical analysis. May be repeated for credit. Letter grading.

132. Philosophical and Kalam Texts. (4) Lecture, three hours. Requisite: course 120A. Readings in premodern Arabic philosophy. May be repeated for credit. P/NP or 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 of original texts from across the 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, with all required readings in original Arabic only. Readings in modern Arabic literature, variably organized across or around particular trends, genres, topics, canonical authors, regional, or national literatures, or in relation to formal analyses of historical and critical texts and making use of film, video-clip, and song in approaching literary culture. May be repeated for credit. Concurrently scheduled with course C241. Letter grading.

142. 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. Exploration of conjunctions between contemporary Arab film and song and between popular cultures and cultures of commitment (liltzan), with possible focus on specific genres such as realist/neorrealist Arab film; feminist Arab film or popular Arab film and song; 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 Egyptian, Tunisian, Moroccan, Algerian, and Palestinian. Various musical genres such as Raï, Mizoued, and Hip-hop also examined in relation to emergence not only of national cinemas, national music industries, and iconic singers but also of video clip, satellite TV, star academy, and reality shows—all products of transnational and pan-Arab media and entertainment. Letter grading.

150. Classical Arabic Literature in English. (4) Lecture, three hours. Readings in English; knowledge of Arabic not required. Survey of premodern Arabic cultural production in its political, religious, and social contexts. Coverage of pre-Islamic Arabia, rise of Islam, and major themes of Southwest Asian history, along with significant figures and moments in literature and culture of premodern period. Consideration of selected modern responses to Arabic tradition. P/NP or letter grading.

M151. Modern Arabic Literature in English. (4) (Same as Comparative Literature M148.) Lecture, three hours. Upper-division literature and culture courses. Topics may include constructions of Otherness in modern Arab culture; East-West debate; memory, trauma, and mourning; violence, narrative, and ethics; globalization, oil, and cultural insurgency; Arab culture in transnational context or questions of reception, ex- oticism, translation, and marketing. Genres may include prison narratives; novel of terror; memoirs by women; and Arabic cinema as well as 19th- and 20th-century travel narratives; Arabic romantic poetry; literature of pre-1948; rise of Arab novel. Areas may range from generic look at Arab world to narrow focus on Maghreb, such as Algeria, Morocco, and Tunisia, or more broadly to Arab world. May also be organized around Arabic literatures written in a single language, namely English, Arabic, or French. Letter grading.

M155. Al-Andalus. Literature of Islamic Spain. (4) (Same as Comparative Literature M119.) Lecture, three hours. Study of literature of Islamic Spain to learn about interaction of Western 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.

M171. Culture Area of Maghrib (North Africa). (4) (Same as Anthropology M166D and History M108C.) Lecture, three hours. Designed for juniors/seniors. In- cludes history of Maghreb, including Morocco, Algeria, Tunisia, and Libya, also known as Maghrib or Tamazgha. Topics include changing notions of per- sonal, tribal, ethnic, linguistic and religious identities; colonialism; gender and legal rights, changing repre- sentations of Islam, and religions in region’s public spaces. P/NP or letter grading.

177. Variable Topics in Arabic. (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.

180. Linguistic Analysis of Arabic. (4) Lecture, four hours. Requisite: course 102C. Linguistic description of Arabic at the sentence level. Includes study of linguistic characteristics of modern Arabic dialect forms. Introduction to linguistic analysis of Arabic phono- logy, morphology, and syntax and to linguists’ ap- proaches to specific problems posed by Arabic grammar and lexicology. Open to both native and nonnative speakers of Arabic. P/NP or letter grading. May be repeated for credit. Letter grading.

181. Translating Arabic. (4) Seminar, three hours. Preparation: advanced proficiency in English and Ar- abic (at least three years of Arabic instruction or equiv- alent). Open to both native and nonnative speakers of English and Arabic. Training of students in methods of translation from Arabic into English, with focus on producing accurate and readable English versions of Arabic texts from variety of fields. Close reading and written translation of Arabic texts, with re- view of linguistic and cultural difficulties that arise in course of translation. Texts may include classical Ar- abic literature (religion, historiography), modern writing (literature, media), and spoken Arabic (television, radio), based on student interest. Letter grading.

188FL. Special Studies: Readings in Arabic. (2 to 4) Seminar, two hours. Requisite: course 102C. Students must be concurrently enrolled in affiliated main course. Primary readings and additional work in Ar- abic to enrich and augment work assigned in main course. 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. Three hours of outside work from texts assigned. 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.

197. Individual Studies in Arabic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Intensive study with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject and matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Arabic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervision and individualized instruction 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

220. Seminar: Islamic Texts. (4) Seminar, three hours. Major Islamic thinkers and their works from classical period to modern times. Coverage of doc- trines and hermeneutics of various schools of thought in Islam, such as Hanafi, Hanbali, Shafi’i, Maliki, and Sufis. May be organized around one au- thor or his works, multiple authors and their works, or specific topic with representative readings from vari- ous schools. Exploration of secondary literature in Ar- abic and other languages for student research papers. May be repeated for credit. S/U or letter grading.

M231. Texts in Judeo-Arabic. (4) (Same as Hebrew M231.) Lecture, three hours. Requisite: course 102C, Hebrew 102C. Reading of Arabic texts by Maimonides (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 Sira, Wajidji’s Maghazhi, Baladurhi’s Futuha, Tabari’s Ta’rikh, digests of Ya’qubi and Mas’udi, Ibn Khaldun’s Muqaddima, and Magziri’s topography. Students will determine the reliability of sources as their view or the view of their teachers and its theoretical foundations. Exploration of sources, re- 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 medieval Islamic geographers. Selected readings in Arabic that represent cross-section of Islamic geo- graphy. Readings distributed over number of disci- plines and various aspects of geography, such as Surat al-ard, Kitab al-Buldun, al-Masalik wa-l-Mamalik, 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 original Arabic only. Readings in modern Arabic literature, variably organized across or around particular genres, topics, canonical authors, regional, or national literatures, mixing thematic and formal analyses of literary and cultural texts and making use of film, video-clip, and song in approaching a cultural body. May be repeated for credit. Concurrently scheduled with course C141. Letter grading.

250. Seminar: Premodern Arabic Literature. (4) Seminar, three hours. Requisite: course 102C. Development of facility with language of Arabic not required. Survey of premodern Arabic cultural production in its political, religious, and social contexts. Coverage of pre-Islamic Arabia, rise of Islam, and major themes of Southwest Asian history, along with significant figures and moments in literature and culture of premodern period. Consideration of selected modern responses to Arabic tradition. P/NP or letter grading.

M255. Literatures and Cultures of Maghreb. (4) (Same as Comparative Literature M255.) Seminar, three hours. Limited to graduate students. Examination of traditionally diverse literatures of Maghreb in the modern period, competing conceptions of language, national identity, gender politics, religious and cultural formations, Pan- Arabism and postcolonial nationhood, Third-Worldism and economic development, modernity and globaliza- tion, nation and coloniality, otherness, and the “Arab” as defined by Empire.” Readings in original Arabic, as well as in English translations from different Maghrebian languages (particularly Arabic and French) in conjunction with theoretical literature on culture, cultural translation, deconstruction, and host of other relevant theories of gender, globalization, and postcolonial cul- tural studies. S/U or letter grading.
275. Encountering Arabic Manuscripts: Introduction to Arabic Paleography and Critical Edition of Manuscripts, (4) Lecture, three hours; discussion, one hour. Requisite: course 103C. Introduction to Arabic paleography and how to prepare editions of medieval manuscripts with critical apparatus and stemma. During past decades enormous number of previously unknown Arabic manuscripts have been discovered. While vast range of medieval texts have been published in editions of varying quality, equally large number of manuscripts remain unpublished. UCLA has outstanding collections of Near Eastern manuscripts in Arabic, Persian, and Ottoman Turkish, primarily in fields of medicine, literature, philosophy, theology, law, and history. It is rich in works related to studies of theologians and scholars at different centers of learning in Iran during Safavid period noted for works of Shiite theology, Islamic sciences, and philosophy. Course opens this treasure to graduate students interested in editing and/or translating manuscripts. S/U or letter grading.

M288. Modern Iraqi Thought, (4) (Same as Comparative Literature M288.) Seminar, three hours. While much has been written and said about resurgence and spread of political Islam after collapse of ideology of secular nation-state, significant number of Arab leftists who h condensed expositions of postrevolutionary/postcolonial moment, little has been devoted to less sensational topic of modern Arab thought despite unmistakable proliferation of confrontations between Arab leftists and artists in aftermath of 1967. Course addresses and readdresses this glaring imbalance by considering new cultural material—literary, critical, philosophical, artistic, and aesthetic—produced before, during, and after Nahda but mostly before and after 1967 and fosters insightful approaches to unlike coexistence in Arab contemporaneity of ever-deepening and generalized crisis and of steady and consolidated development (if not effervescence) of cultural and artistic production. S/U or letter grading.

496. Arabic Language Pedagogy Course, (2) Seminar, three hours. Taught in English and Arabic. Discussion of methods related to teaching Arabic language and teaching content. Designed to address Arabic language pedagogy, with emphasis on practical issues and applications of different language teaching methodologies. Activities include lectures, classroom observations, and teaching demonstrations. Participants collaborate on projects that investigate issues related to teaching different language skills, such as listening, speaking, reading, and writing. S/U grading.

596. Directed Individual Study, (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.

597. Examination Preparation, (2 to 6) Tutorial, to be arranged. S/U grading.


Armenian

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 Seminar (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. All Honors courses 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 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. Emphasis research on 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. Intermediate Modern Western Armenian, (5–5–5) Lecture, five hours. Recommended requisite: course 102C. Course 103A is recommended requisite to 102B, which is recommended requisite to 101C. Students with knowledge of Eastern or Western Armenian should contact instructor to determine appropriate enrollment level. Designed for students with advanced speaking fluency and reading abilities in Armenian. Exploration of advanced topics in areas of competency: fluency, literacy, accuracy, and proficiency. Use of language to engage literary and cultural issues of historical and contemporary significance for Armenian speakers. P/NP or letter grading.

104A-104B-104C. Elementary Modern Eastern Armenian, (5–5–5) Lecture, five hours. Course 104A is recommended requisite to 104B, which is recommended requisite to 104C. Students with knowledge of Eastern or Western Armenian should contact instructor to determine appropriate enrollment level. Designed for students with limited knowledge of Eastern Armenian, official idiom of Republic of Armenia. Introduction to basics of grammar and conversation. P/NP or letter grading.

105A-105B-105C. Intermediate Modern Eastern Armenian, (5–5–5) Lecture, five hours. Recommended requisite: course 104C. Students with knowledge of Eastern or Western Armenian (from elementary or high school) should contact instructor to determine appropriate enrollment level. Continuing introduction to Armenian grammar, with greater attention to readings from short stories and simple newspaper articles and film viewing on video. Emphasis on improving students' self-expression in idiom, both orally and in written form. Each course may be taken independently for credit. P/NP or letter grading.

106A-106B-106C. Armenian Society and Culture, (4–4–4) Lecture, four hours. Recommended requisite: course 105C. Students with knowledge of Eastern or Western Armenian (from elementary or high school) should contact instructor to determine appropriate enrollment level. Designed for students with advanced speaking fluency and reading abilities in Armenian. Discussion of contemporary social and cultural issues through readings from critical essays, editorials, short stories, and poems written since World War II and film showings. Emphasis on enhancing students' understanding of a diversity of contemporary mores and as agents for social reform. Concurrently scheduled with course 105C, P/NP or letter grading.


150B. Modern Armenian Drama as Vehicle for Social Critique, (4) Lecture, four hours. Readings of selected plays from 1668 to 1992 from three main genres of tragedy, comedy, and serious drama and film showing on video. Emphasis on improving students' self-expression in idiom, both orally and in written form. Each course may be taken independently for credit. P/NP or letter grading.

150C. Modern 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 251, P/NP or letter grading.

150D. Modern Armenian Drama as Vehicle for Social Critique, (4) Lecture, four hours. Readings of selected plays from 1668 to 1992 from three main genres of tragedy, comedy, and serious drama and film showing on video. Emphasis on improving students' understanding of a diversity of contemporary mores and as agents for social reform. Concurrently scheduled with course 252, Letter grading.

150E. Modern Armenian Drama as Vehicle for Social Critique, (4) Lecture, four hours. Readings of selected plays from 1668 to 1992 from three main genres of tragedy, comedy, and serious drama and film showing on video. Emphasis on improving students' understanding of a diversity of contemporary mores and as agents for social reform. Concurrently scheduled with course 253, P/NP or letter grading.

150F. Modern Armenian Drama as Vehicle for Social Critique, (4) Lecture, four hours. Readings of selected plays from 1668 to 1992 from three main genres of tragedy, comedy, and serious drama and film showing on video. Emphasis on improving students' understanding of a diversity of contemporary mores and as agents for social reform. Concurrently scheduled with course 254, Letter grading.

150G. Modern Armenian Drama as Vehicle for Social Critique, (4) Lecture, four hours. Readings of selected plays from 1668 to 1992 from three main genres of tragedy, comedy, and serious drama and film showing on video. Emphasis on improving students' understanding of a diversity of contemporary mores and as agents for social reform. Concurrently scheduled with course 255, P/NP or letter grading.

150H. Modern Armenian Drama as Vehicle for Social Critique, (4) Lecture, four hours. Readings of selected plays from 1668 to 1992 from three main genres of tragedy, comedy, and serious drama and film showing on video. Emphasis on improving students' understanding of a diversity of contemporary mores and as agents for social reform. Concurrently scheduled with course 256, P/NP or letter grading.

150I. Modern Armenian Drama as Vehicle for Social Critique, (4) Lecture, four hours. Readings of selected plays from 1668 to 1992 from three main genres of tragedy, comedy, and serious drama and film showing on video. Emphasis on improving students' understanding of a diversity of contemporary mores and as agents for social reform. Concurrently scheduled with course 257, P/NP or letter grading.

150J. Modern Armenian Drama as Vehicle for Social Critique, (4) Lecture, four hours. Readings of selected plays from 1668 to 1992 from three main genres of tragedy, comedy, and serious drama and film showing on video. Emphasis on improving students' understanding of a diversity of contemporary mores and as agents for social reform. Concurrently scheduled with course 258, P/NP or letter grading.

150K. Modern Armenian Drama as Vehicle for Social Critique, (4) Lecture, four hours. Readings of selected plays from 1668 to 1992 from three main genres of tragedy, comedy, and serious drama and film showing on video. Emphasis on improving students' understanding of a diversity of contemporary mores and as agents for social reform. Concurrently scheduled with course 259, P/NP or letter grading.

150L. Modern Armenian Drama as Vehicle for Social Critique, (4) Lecture, four hours. Readings of selected plays from 1668 to 1992 from three main genres of tragedy, comedy, and serious drama and film showing on video. Emphasis on improving students' understanding of a diversity of contemporary mores and as agents for social reform. Concurrently scheduled with course 260, P/NP or letter grading.
Graduate Courses

230A-230B-230C. Elementary Classical Armenian. (4–4–4) Lecture, three hours. Course 230A is requisite to 230B, which is requisite to 230C. Introduction to grammar of classical literary language (5th to mid-19th century) and guided readings in narrative prose texts. Letter grading.


232A-232B-232C. Advanced Classical Armenian. (4–4–4) Lecture, three hours. Requisite: course 231A or 231B or 231C. In-depth reading and linguistic analysis of texts related to Philhellene School of 6th to 9th century and related works up to 19th century. Each course may be taken independently for credit. Letter grading.

250A-250B-250C. Seminars: Armenian Literature. (4–4–4) Seminar, three hours. Selected topics from various periods of Armenian literature. May be repeated for credit. S/U or letter grading.

251. Armenian Literature and Canon Formation. (4) Lecture, for in-depth discussion of fundamental themes and genres around which Armenian literary tradition evolved and modalities by which this has transformed in course of last two centuries as result of exposure to European thought and expressive forms. Concurrently scheduled with course C151. S/U or letter grading.

252. Modern Armenian Drama as Vehicle for Social Criticism. (4) Lecture, four hours. Readings of selected plays from 1668 to 1992 from three 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 C152. Letter grading.

253. 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 C153. P/NP or letter grading.


266. Armenian Film and Culture. (5) Lecture, six hours. Requisite: course 1C or 4C. Overview of development of Armenian cinematography from first talkie period to 1B, which is enforced requisite to 1C. Not open to native speakers. Introduction to modern Armenian, including listening, speaking, reading, and writing, P/NP or letter grading.

8. Elementary Hebrew: Intensive. (12) Lecture, 10 hours; discussion, 10 hours. Intensive course equiva- lent to courses 1A, 1B, and 1C. Introduction to modern Hebrew, including listening, speaking, reading, and writing. Offered in summer only. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Overview 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. Lim- ited to students in College Honors Program. Con- current with 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 stu- dents. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervision of research or other scholarly work), three hours per week per unit. Entry-level research for lower-di- vision 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

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 course 102A, 102B, or 102C must arrange course as adjunct to lower-division lecture course. In- 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 contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.


111A. Israeli 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 imagina- tion and various Israeli sociocultural issues to familiar- ize students with different aspects of Israeli daily life and popular culture, while teaching them multiple
speech acts in both formal and informal contexts and enriching their Hebrew vocabulary and its retention. P/NP or letter grading.

111B–111C. Conversational Hebrew. (3–3) Lecture, two hours; laboratory, one hour. Requisite: course 111A. Course 111B is requisite to 111C. Vocabulary used in daily life, conversation, and texts in both formal and informal contexts, and various Israeli sociocultural issues using different kinds of media, such as video, Internet, and newspapers. P/NP or letter grading.

112. Reading and Discussion of Scholarly Hebrew. (2) Seminar, two hours. Requisite: course 102C. In-depth reading and discussion of selected scholarly articles in modern Hebrew for various disciplines: Bible study, Jewish historical, sociological, 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/NP or letter grading.

M113. Contemporary Israeli Short Stories/Novellas and Films in English. (5) (Same as Jewish Studies M113.) Lecture, three hours; laboratory, two hours. Exploration of modern Israeli literature, focusing on the influence of Israeli history and identity on contemporary works. Credit cannot be gained for courses 102C and 112. May be repeated for credit. P/NP or letter grading.


125. Hebrew Bible with Medieval Commentaries. (4) Lecture, three hours. Requisite: course 103C. Hebrew Bible with the 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. Requi- sites: courses 103A, 103B, 103C. Readings in Mishnah, Talmud, and/or Midrash. May be repeated for credit.


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. Requ- isite: course 110C. Readings in Hebrew scrolls from Dead Sea Scrolls, with focus on grammar, paleography, and/or biblical interpretation in Dead Sea Scrolls. May be repeated for credit. P/NP or letter grading.

180A-180B. Survey of Hebrew Grammar. (4–4) Lecture, three hours. Requisites: courses 102A, 102B, 102C. Development of a 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, forms of language changes in both formal and informal Hebrew, traditional pronunciation of Hebrew by various Jewish communities, Hebrew contribution to other Jewish languages (Yiddish, Ladino, Judeo-Arabic), P/NP 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. Primary 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/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. De- signed as adjunct to upper-division lecture course. Indi- vidual study with faculty advisor 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.

197. Individual Studies in Hebrew. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual inten- sive study, with scheduled meetings to be arranged between student, 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 He- brew. (2 to 4) Tutorial, one hour. Limited to juniors/se- niors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Indi- vidual contract required. P/NP or letter grading.

Graduate Courses

210. History of Hebrew Language. (4) Seminar. three hours. Development of Hebrew language in its classical period from archaic poetry through rabbinic Hebrew. Special attention to sociolinguistics; literary and linguistic style; sociolinguistic change; and history of the language. May be repeated for credit. P/NP or letter grading.


225. Studies in Dead Sea Scrolls. (2 or 4) Seminar, three hours. Requisite: course 120. Critical study of Dead Sea Scrolls, with attention to historical interpre- tation and role of Dead Sea Scrolls in formative 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 120C; Arabic 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 semantics and analysis of dynamics of modern 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. Rele- vant sources include Chronicles, Ezra-Nehemiah, Ec- clesiastes, Ben Sira, Daniel, Dead Sea Scrolls, and other documents from Judean desert, and various ap- ocrphy and pseudepigrapha. Special attention to historical development of Hebrew language and litera- ture in Second Temple period. Sources, styles, grammar, and syntax and to subsequent Rabbinic writings. Course builds following skills: reading un- pointed texts, mastering distinctive elements of vo- cabulary, and syntax; and understanding Second Temple Hebrew, and analyzing relationships between biblical and postbiblical sources. May be repeated for credit. S/U or letter grading.

240. Modern Hebrew Poetry and Prose. (4) Lec- ture, 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 D60. Letter grading.


596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Irish

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/NP or letter grading.

6. Elementary Persian: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Per- sian to qualify for more advanced courses. Intensive course equivalent to courses 1A, 1B, and 1C. Intro- duction to fundamentals of Persian, including pronun- ciation, grammar, and Persian script, with emphasis on all four basic language skills—speaking, listening, comprehending, reading, and writing. Offered in select years. 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–20B–20C. Accelerated Elementary Persian. (6–6–6) Lecture, four hours; discussion; two hours; labora- tory, 30 minutes per day. Preparation: some knowl- edge of spoken Persian. Course 20A is enforced req- uisite to 20B, which is enforced requisite to 20C. In- tensive and thorough study of fundamental structure of Persian grammar; reading from a wide range of classical and modern poetry and prose compositions. P/NP or letter grading.

55. Gender and Sexuality in Arts and Literatures of Iran and Middle East. (5) Lecture, three hours; dis- cussion, one hour. Multidisciplinary introduction to Persian poetry, recognized as jewel of Persian culture, and to pictorial, architectural, performative, cinematic, and photographic dimensions of artistic milieu span- ning between Balkans, India, and Central Asia from 10th century CE to present. With consideration of cen- trality of discourses on identity, desire, and spirituality to core of Persian aesthetics, study of broad variety of anthropological, ethnological and historical is- sues stemming from both mainstream topics charac- terizing extensive field of Iranian studies and most controversial conversations on nature of sexuality, eth- nicity, and religion. P/NP or letter grading.

M60. Achaemenid Civilization and Empire of Alex- ander. (6) (Same as Ancient Near East M60 and His- tory M60.) Lecture; three hours; discussion, one hour. Survey of period from circa 600 to 300 BCE, rise and fall of Achaemenid Persia, and questions of continuit- y, which was ended by Alexander the Great, whose campaigns were as transformative as they were vio- lent. 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 ide- ology; comparative study of empires; administration and institutions; and religious and ethnic diversity in large, heterogeneous states. Students gain broad
knowledge of Achaemenid and Macedonian empires, facility with ancient primary sources, and development of analytical skills central to discipline of history. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division 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. Individual honors contract required. 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 courses. 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. Preparation of honors or graduate program with consent of instructor. May be repeated for credit. P/NP or letter grading.

91. Upper-Division Courses

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. Each course may be repeated for credit. P/NP or letter grading.

104. Philosophical Texts. (4) Lecture, three hours. Readings in English. Introduction to intellectual history of Persia by selecting works on popular ethics that have helped shape notions of Iranian Jews and other Iranians. P/NP or letter grading.

105A. Baha'í Faith in Iran: Historical and Sociological Survey. (4) Same as Religion M105A. Lecture, three hours. Readings in English. Research and development of Babi and Baha'is religions in context of 19th century Iran. Focus on personalities of Babi, Baha'u'llah, and 'Abdu'l-Baha. May be taken independently for credit. P/NP or letter grading.


105C. Baha'í Faith in Iran: 20th-Century Iran and the Baha'is. (4) Same as Religion M105C. Lecture, three hours. Readings in English. Focus on 20th-century Iran beginning with constitutional revolution, development and persecution of Baha'is' community, and latter's relation to reform movements in Iran. May be taken independently for credit. 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, readings in English. Comparative study of 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.

130. Intellectual History of Jews of Persia. (4) Lecture, three hours. Readings in English. Introduction to intellectual history of Jews in Persia by selecting works on various authors and their work. P/NP or letter grading.

131. Introduction to Judeo-Persian: Language and Culture. (4) Lecture, three hours. Preparation: knowledge of Persian equivalent to course 102C. Introduction to Judeo-Persian language and culture. May be taken independently for credit. P/NP or letter grading.

132. Intermediate Judeo-Persian Literature and Culture. (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.

133. Intermediate Judeo-Persian Literature and Culture. (4) Lecture, three hours. Preparation: courses 102C, 131. Literary study of Judeo-Persian literature, as segment of Iranian classical literature. Judeo-Persian literary genres, in forms of prose and verse, compared with Arabic and Persian genres in context of Iranian literature. Textual study of Judeo-Persian manuscripts, both print and cursive, and their variations depending on time period or locality. P/NP or letter grading.

140. Persian Belles Lettres (Adab-y-yad). (4) Lecture, three hours. Preparation: course 102C. Study of major Persian poets and prose writers: prose—Sohrawardi, Hamadani, Nasafi, Iraqi; others; poetry—Hafez, Sa'di, Rumi, Baha'ir, Dakhshoda, and others. May be repeated for credit with consent of instructor. P/NP or letter grading.

141. Persian Analytical Prose. (4) Lecture, three hours. Preparation: course 102C. Study of selected analytical and expository prose texts, with emphasis on philosophy, sciences, literary criticism, and history. May be repeated for credit with consent of instructor. P/NP or letter grading.

142. Persian Historical and Circular Letters. (4) Lecture, three hours. Preparation: 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. (4-4) Lecture, three hours. Knowledge of Persian not required. Each course may be taken independently for credit.

161A-161B-161C. Elementary Middle Iranian. (4-4-4) Lecture, three hours. Preparation: knowledge of Persian desirable. Course 161A is requisite to 161B, which is requisite to 161C. Studies in grammars and texts of Old, Middle, and New Persian (classical Per- sian, Parthian, Sogdian, Khitan, and Bactrian). 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 scheduled with course CM259P. P/NP or letter grading.

164. Certificate of Proficiency in Historical Survey of Historic Cities and Sites of Iran from 4000 BC to 1900 AD. (4) Lecture, four hours. Introduction to ar- chaeological and historical monuments and sites of Iran from earliest periods to early 20th century. Examining the emergence of ancient civilizations, forma- tion of cities and their development and expansion throughout late Sasanian and early Islamic periods to preindustrial era in early years of past century. Study of fall of ancient Iranian cities and cities, from fifth millennium BC to Qajar period, based on relevant archaeological, historical, and geographical sources. Study of archaeology and historical geography of early Islamic period with aerial views of 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, Zoroastrianism, Manichaism, Mazdakism.

178. Introduction to History and Culture of Iran. (4) Course M178. Lecture, three hours. Introduction to political, intellectual, cultural, and socioeconomic status 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 and intel- lectual history, include identity and status, religious tolerance versus forced conversion, Iranian Jewish emancipation, and interplay between Ira- nian 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. (2) Seminar, two hours. Preparation: 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, including 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. 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, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

197. Individual Studies in Iran. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual inten- sive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and discussion of tangible effects of topic or subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Iran. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individuals with 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 Near Eastern Studies M210.) Seminar, three hours. Varying topics on Elamite, Achaemenid, Arsacid, and Sasanian history. May be repeated for credit. S/U or letter grading.


221A, 221B, 221C. Rumi, Mystic Poet of Islam. (4) Seminar, three hours. Requisite: course 220A or 220B. Study of life and works of Rumi in context of interaction of Sufism and poetic creativity. May be repeated twice for credit.


231A–231B–231C. Advanced Middle Iranian. (4–4–4) Lecture, three hours. Requisite: course 131C. Course 231A is requisite to 231B, which is requisite to 231C. Further studies in grammars and texts of Middle Iranian languages (e.g., Middle 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. Requisites: 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 Achaemenian times. Concurrently scheduled with course CM163. S/U or letter grading.

596. Directed Individual Study. (2 to 9) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Islamic 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.

M20. Introduction to Islam. (5) (Formerly numbered M110.) (Same as Religion M20.) Lecture, three hours; discussion, one hour. Genesis of Islam, its doctrines, and practices, with readings from Qur’an and Hadith; schools of law and theology; piety and Sufism; reform and modernism. P/NP or letter grading.

89H. Honors Introduction to Islam, 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. Arranged 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 their first year and must enroll in unit number 12 and enroll no more than 12 units per unit. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

M107. Islam in West. (5) (Same as Arabic M107 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 selected Muslim communities in West. Exposure to 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.

M111. Introduction to Islamic Archaeology. (4) (Same as Art History M119C 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 Sind. Culture transformations occurred from birth of Islam in 7th century to early and late 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 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, and 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 had a unique combination of ancient and medieval, and during the early medieval period in Egyptian Christianity. Survey of archaeological remains and standing architecture of Egyptian from 6th to 14th centuries. May be repeated for credit.

M115. Islam and Other Religions. (5) (Formerly numbered M50.) (Same as Religion M115.) 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 the question of how does Qur’an reflect religious plurality; how does it situate Islam vis-a-vis its alternatives; what encounters did rapid expansion of Islam bring about in diverse society; how did Islam and other religions change through debate, war, and exchange of ideas; what roles has political power played in conditioning interreligious interaction; how have conversion and hybridity affected what it means to be Muslim; what is different about interreligious interactions in secular states and societies; and how is past invoked to justify opinions and policies today. Investigation of these questions by conducting readings of original sources through theoretical lens. P/NP or letter grading.

130. Shi’a in Islamic History. (4) Seminar, three hours; discussion, one hour. Rise and development of Shi’ism, its doctrines, and practices; major branches: Twelvers, Ismailis, Zaydis; their contribution to Islamic thought and civilization; modern trends of reinterpretation and reform. Letter grading.

151. Islamic Thought. (4) Lecture, 90 minutes; discussion, 90 minutes. Recommended requisite: course M110. Based on original writings of major Islamic philosophers, scholars, and jurists, this course provides a broad picture of enormous ideological variety found in contemporary Muslim world. Examination of representative writings from wide spectrum of modern Islamic intellectual and writers. 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.

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.

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 societies, with special emphasis on methodologies current in the study of Islam. Credit may be applied toward honors credit for eligible students. Content varies each year. Letter grading.


291A. Variable Topics in Islamic Studies. (4) Seminar, three hours. Selected topics on Islam. May be repeated for credit with topic change. 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.


598. MA Thesis Research and Preparation. (2 to 8) Tutorial, to be arranged. S/U or letter grading.


Jewish Studies

Lower-Division Courses

M10. Introduction to Judaism. (5) (Same as Religion M10.) Lecture, three hours; discussion, one hour. Judaism’s basic beliefs, institutions, and practices. Topics include development of biblical and rabbinic Judaism; concepts of god, sin, repentance, prayer,
the messiah; history of Talmud and synagogue; and Jewish State. (4) (Same as Middle Eastern Studies M144.) Lecture, three hours; discussion, one hour. History of Zionism on backward of European, word, and Jewish histories from ideological origins to political, cultural, and social foundations of State of Israel. P/NP or letter grading.

M150A-150B. Hebrew Literature in English. (4–4) Lecture, three hours. English translation. May be repeated for credit. P/NP or letter grading.

M151A. Diaspora Literature. (Same as Comparative Literature M151.) Study of literature of an- cient Israel: Bible and Apocrypha. (Same as Compar- ative Literature M101.) Study of literary culture of an cient Israel: Bible and Apocrypha. Three hours. Examination of major issues in Jewish history. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M152. Music and Holocaust: Individual Experience. (5) (Same as Musicology 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 used music as the basis of new musical literatures. Focus on role American and European non-governmental organiza- tions played in creation of artistic hubs in campus of southern France. Exploration also of cultural represen- tative dimension of language, including ability of texts to undermine predominance of modernist-Zionist narra- tive. 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 upning formative myths. They simultaneously display loss of faith in represen- tative discourse of examining ability of texts to penetrate to its hidden meaning. Using periphery discourses, these texts strive to change modernist aesthetic and power paradigm. P/NP or letter grading.

M132. Modern Jewish American Experience through Music. (5) (Same as Musicology M80.) Lecture, three hours; discussion, one hour. In synagogue and on stage, and from LP recordings to YouTube, Jews in America have varied from Hebrew, Yiddish, German, Russian, French, and English. Music of synagogue, celebra- tions at home, in community, and theater are all interesting developments of Jewish music. New Oppor- tunities in entertainment industry brought new possi- bilities for Jewish music, rock, and hip hop scores. Exploration of various examples of Jews re- sponding and adapting to their American context and becoming American through music. Exploration of dif- ferent music as an expression of American Jewish history and American Jewish American culture. Paper writing, presentations by guest composers and performers. Letter grading.

M142. Modern Israel: Politics, Society, Culture. (4) (Same as Middle Eastern Studies M142.) Lecture, three hours. Examination of evolution of Israel—its changing society, volatile domestic and foreign poli- tics, and dynamic culture—from its foundation in 1948 to present, in context of global political and cultural changes. Discussion of tension between Israel’s conception of itself as Jewish state and fact that it is home to wide variety of ethnic and religious groups and to great diversity of cultures; that it was envisioned as an Israeli Jewish home but has been characterized by insecurity and ongoing war; that, founded as democracy, it contends with multiple strains on its democratic system, such as tensions be- tween Jews and Arabs, secular and religious Jews, and disparate ethnic groups. P/NP or letter grading.

M143. Introduction to Jewish Folklore. (4) Lecture, three hours. Nature of Jewish folklore; narrative, folk song, folk art, folk religion, and methods and perspec- tives in studying folklore. P/NP or letter grading.

M144. Zionism: Ideology and Practice in Making of Jewish State. (4) (Same as Middle Eastern Studies M144.) Lecture, three hours; discussion, one hour. History of Zionism on backward of European, word, and Jewish histories from ideological origins to political, cultural, and social foundations of State of Israel. P/NP or letter grading.

M151A-151B. Modern Jewish Literature in English. (4–4) Lecture, three hours. Each course may be taken independ- ently for credit. P/NP or letter grading.

M151B. Jewish Thought, Politics, and Ethics: From Theory to Practice. (4) (Same as His- torical Literature M182A and Religion M182A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of unfolding of modern Jewish religious movements and their attitude to rabbinic Judaism. P/NP or letter grading.

M151A-151B. Modern Jewish Literature in English. (4–4) Lecture, three hours. Each course may be taken indepen- dently for credit. P/NP or letter grading.

M152. Music and Holocaust: Individual Experience. (5) (Same as Musicology 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 used music as the basis of new musical literatures. Focus on role American and European non-governmental organiza- tions played in creation of artistic hubs in campus of southern France. Exploration also of cultural represen- tative dimension of language, including ability of texts to undermine predominance of modernist-Zionist narra- tive. 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 upning formative myths. They simultaneously display loss of faith in represen- tative discourse of examining ability of texts to penetrate to its hidden meaning. Using periphery discourses, these texts strive to change modernist aesthetic and power paradigm. P/NP or letter grading.

M152C. Modern Jewish History. (4) (Same as His- torical Literature M182C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of unfolding of modern Jewish religious movements and their attitude to rabbinic Judaism. P/NP or letter grading.

M182B. Medieval Jewish History. (4) (Same as His- torical Literature M182B and Religion M182B.) Lecture, three hours; discussion, one hour (when scheduled). De- signed 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 His- torical Literature M182C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of early modern Jewish history beginning with enormously repercussive 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 Anti-Semitism. (4) (Same as History M184B.) 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.

M184C. American Jewish Experience. (4) (Same as History M184C.) 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. Experience of Jews in America, both historical and contemporary. P/NP or letter grading.

M187. Holocaust in Literature. (4) (Same as Comparative Literature M185.) 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 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 Research Seminars: Jewish Studies. (4) Seminar, three hours. Research seminar on selected topics. Technical discussion, and development of culminating project. 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. Culfminating paper or project must be submitted. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Course


Middle Eastern Studies

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of 3rd 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.

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 societie. Letter grading.

M50B. Origins of Judaism, Christianity, and Islam. (5) (Same as Ancient Near East M50B and Religion M50.) 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 mechanisms of revelation, struggle for religious authority, and community formation. Emphasis on origin of evil and status of nonbelievers. Letter grading.

M50CW. Making and Studying Modern Middle East. (5) (Formerly numbered 50C.) (Same as Anthropology M67W.) Lecture, three hours; discussion, one hour. Prerequisite: M50B or consent of instructor. 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. 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.

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.

99. Student Research Program. (1 to 2) Tutorial (supervised reading and research), one hour; fieldwork, three hours. Exploration of topics in greater depth through individual study under guidance of faculty mentor. Culminating project may include a written paper, a documentary project, or other activity. May be repeated for a maximum of 4 units. Student contract required. P/NP or letter grading.

Upper-Division Courses

M111. Introduction to Islamic Archaeology. (4) (Same as Art History M119C and Islamic 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 occurred from birth of Islam in 7th century to early Ottoman period in 16th and 17th centuries, which are traceable in material record and in consciousness of self, society, and culture. According to material evidence such as ceramics, textiles, architecture, and cultural forms, and building techniques, it is functionally impossible to separate pre-Islamic Christia 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 sizable Christian community to present. Survey of archaeological remains and standing architecture of Egypt from 6th to 19th century, charting changes and continuities in material culture and shifts in human geographic and land use. P/NP or letter grading.

C122. History, Memory, and Identity in Israel. (4) Seminar, three hours. Israel society was born in effort to reconstitute images of Judaism that had been shaken by many debates over history, recent and ancient events, and how these are represented by historical scholarship as well as in popular media and public spaces. Struggles over image of past have become central (as in many other societies) to debates about identity in present and directions, goals, and hopes for future. Exploration of ways in which struggles over past have shaped Israel present. Examination of historiographical debates and their reflections in range of media to make some sense of ever-changing past, ways in which it shapes political, ideological, and cultural identities in present, and where meeting points are between popular discourse and work historians do. Examination of conflicting readings of past and its representation in Israeli historiography and in shaping of Israeli collective memory. Course is currently scheduled with course C222. P/NP or letter grading.

M133. Bible and Qur’an. (4) (Same as Religion 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 sociocultural background from which these multifarious texts emerged, and to explore major themes and consider variety of approaches to scriptural development. Examination and appreciation for role scripture plays in these religious systems and in American culture and society. P/NP or letter grading.

M142. Modern Israel: Politics, Society, Culture. (4) (Same as Jewish Studies M142.) Lecture, three hours. Examination of evolution of Israel—its changing society, volatile domestic and foreign politics, and dynamic culture—from its foundation in 1948 to present, in context of global political and cultural change and changing Jewish world. Tension between Israel’s conception of itself as Jewish state and fact that it is home to wide variety of ethnic and religious groups makes it an increasingly diverse country, such as safe haven for Jewish people but has been characterized by insecurity and ongoing war; that, founded as democracy, it contends with multiple strains on its democratic system, such as tensions between Jews and Arabs, secular and religious Jews, and disparate ethnic groups. P/NP or letter grading.

M144. Zionism: Ideology and Practice in Making of Jewish State. (4) (Same as Jewish Studies M144.) Lecture, three hours; discussion, one hour. History of Zionism on backdrop of European, world, and Jewish histories from ideological origins to political, cultural, and social foundations of State of Israel. P/NP or letter grading.

177. Variable Topics in Middle Eastern 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.

M175. Variable Topics. (4) (Same as Religion M175.) 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.

M179SL. Movement in Art, Philosophy, and Daily Life. (5) (Same as Comparative Literature M179SL.) Seminar, three hours; fieldwork, three hours. Exploration of relationship between humans and world, only relevant output of brain, irrespective of what may or may not go on inside it, is control over movements. In living animals, sensation or consciousness exists to interact complex input of affect and the course of action. Similarly, ownership and agency are inseparably associated with biological systems that control our movements. Movements play vital part in constructing
Near Eastern Languages

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of current topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. Honors content noted on transcript. P/NP or letter grading.

20. Survey of Afro-Asiatic Languages. (4) Lecture, three hours; discussion, three hours. Survey of Afro-Asiatic language family, with focus on presuppositions and core concepts and implications of each theory. Letter grading.


22. History, Memory, and Identity in Israel. (4) Seminar, three hours. Historical exploration of how Israel society was born in effort to reshape images of Jewish past and has been shaped by many debates over history, recent and ancient, and current events. Seminar topics are related to their historical and cultural context, with focus on presuppositions and core concepts and implications of each theory. Letter grading.

Upper-Division Courses

23. Teaching and Learning of Heritage Languages. (4) Same as Anthropology M247Q and History M248.) Lecture, three hours. Exploration of variety of traditions in Near Eastern literature concerning creation of cosmos, origins of mankind, and boundaries between divine and human realms. Answers to questions concerning origins of evil, pursuit of wisdom, expectations for life beyond death, and quest for immortality are all sought in folklore of ancient religions. Directed readings of ancient literatures. S/U or letter grading.


Near Eastern Languages

Graduate Courses

25. Teaching and Learning of Heritage Languages. (4) Same as Anthropology M247Q and History M248.) Seminar, three hours. Introduction to historical and anthropological writings about Mediterranean. Draws on variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame concepts, colonial and post-colonial Mediterranean, religious, intellectual, and historical studies. Mediterranean, French Mediterranean, Jewish Mediterranean, colonial and post-colonial sea and migrants and mobility. Focus on critical history of an anthropological study of Mediterranean literatures that emphasizes southern shores of Mediterranean. Letter grading.


27. Teaching Apprentice Practicum. (1 to 2) Seminar, to be arranged. Development of 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.


29. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate advisor and graduate dean, and cost as specified in the Graduate Center. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.
Semitics
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 repeated toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Graduate Courses


215B. Syriac. (4) Lecture, two hours. Morphology and syntax of Syriac language; readings in Syriac translation of Bible and Syriac literature. May be repeated for credit. S/U or letter grading.


230. Seminar: 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. (1) 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 requirement. Course 240 may be repeated for credit. S/U or letter 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.

241X. Seminar: Akkadian Literature. (1) Seminar, two hours. Readings of texts from various Akkadian literary genres; selected problems in literary history and stylistic analysis. Course for students who participate regularly in class meetings but without the homework requirement. Course 241 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. P/NP or letter grading.


Turkish Languages

Lower-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. Advanced descriptive Uzbek grammar, reading, and analysis of Uzbek literary and folkloric texts. High-style composition and conversation.

115A-115B-115C. 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.

116A-116B-116C. Advanced Azeri. (4–4–4) Lecture, three hours; laboratory, one hour. Preparation: placement test. Proficiency-based course in descriptive Azeri grammar. Reading and analysis of Azeri literary and folkloric texts in new writing system. High-style composition and conversa-
tion. May be repeated for credit. Letter grading.

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 in English translation. Study of special character-
istics of Central Asian Islam.
Neurobiology

David Geffen School of Medicine
73-235 Center for Health Sciences Box 951763
Los Angeles, CA 90095-1763

Neurobiology
310-825-8153
Department e-mail
Paul E. Micevych, PhD, Chair
James W. Bisley, PhD, Vice Chair

Samantha J. Butler, PhD, Vice Chair, Equity, Diversity, and Inclusion
Felix E. Schweizer, PhD, Vice Chair, Education

Overview
The Department of Neurobiology is a premier research department and a leading force in neuroscience 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

M169. History of Neurosciences. (4) Same as Medical History M169. Lecture, one hour; discussion, two hours. Development of knowledge and understanding of the brain and behavior, from Enlightenment era to current day. Emphasis on fundamental conceptual and methodological advances and their impact on education and research in the neurosciences.

M200A. Synapses, Cells, and Circuits. (4) Same as Neuroscience M221 and Psychology M208. Lecture, three hours; discussion, two hours. Development of neuroscience, especially neuroanatomy and neurophysiology, from Enlightenment era to current day. Emphasis on fundamental conceptual and methodological advances and their impact on education and research in the neurosciences.

M200B. Cellular Neurophysiology. (4) Same as Neuroscience M221 and Psychology M208. Lecture, three hours; discussion, two hours. Development of neuroscience, especially neuroanatomy and neurophysiology, from Enlightenment era to current day. Emphasis on fundamental conceptual and methodological advances and their impact on education and research in the neurosciences.

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, transcribe, 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. (8 to 20) Tutorial, to be arranged. May be repeated for credit. S/U grading.


Upper-Division Courses

107A-107B. Historical Development of Medical Sciences. (4-4) Lecture, three hours. Major contributions of medicine 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 Neuroscience M169. Lecture, one hour; discussion, two hours. Development of neuroscience, especially neuroanatomy and neurophysiology, from Enlightenment era to current day. Emphasis on fundamental conceptual and methodological advances and their impact on education and research in the neurosciences.

M200A. Synapses, Cells, and Circuits. (4) Same as Neuroscience M221 and Psychology M208. Lecture, three hours; discussion, two hours. Development of neuroscience, especially neuroanatomy and neurophysiology, from Enlightenment era to current day. Emphasis on fundamental conceptual and methodological advances and their impact on education and research in the neurosciences.

M200B. Cellular Neurophysiology. (4) Same as Neuroscience M221 and Psychology M208. Lecture, three hours; discussion, two hours. Development of neuroscience, especially neuroanatomy and neurophysiology, from Enlightenment era to current day. Emphasis on fundamental conceptual and methodological advances and their impact on education and research in the neurosciences.

Graduate Course

596. Directed Individual Studies in Medical History. (8 to 20) 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.
transmission and balanced account of some of most
topical areas of field, such as hemifusion, kiss and run,
and fast exocytosis. Laboratory sessions review
methods for preparing samples through in-depth anal-
ysis of imaging strategies. Computer laboratory ses-
sions allow demonstration of data exploration and
interpretation. Three round table discussions provide
forum for further inspiration as well as tackling any
questions or difficulties that may arise from laborato-
ries and lectures. S/U grading.

225. Functional Organization of Visual System. (2)
Seminar, three hours. Preparation: basic neuroscience
course. Recommended: neuroanatomy, neurophysi-
ology, and/or several 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.

M227. Neuroendocrinology of Reproduction. (4)
(Same as Physiological Science CM227.) Lecture, three
hours; discussion, one hour. Enforced requisite:
Physiological Science 111B. Understanding of repro-
ductive neuroendocrinology throughout mammalian
lifespan, with emphasis as appropriate on human condi-
tion. Discussion of general concepts of endocrine
feedback and feed-forward loops, sexual differentia-
tion, and structure and function for components of hy-
pothalamic-gonadal axis. Exploration of sex differences
in physiology and disease. Letter grading.

M255. Seminar: Neural and Behavioral Endocrinol-
ogy. (2) (Same as Physiological Science M255 and
Psychology M294.) Seminar, one hour; discussion,
one hour. Topics include hormonal biochemistry and
pharmacology. Hypothalamic/hypophyseal interac-
tions, both hormonal and neural. Structure and func-
tion of hypothalamus. Hormonal control of reproduc-
tive and other behaviors. Sexual differentiation of brain
and behavior. Stress; hormonal, behavioral, and neural
aspects. Aging of reproductive behaviors and func-
tion. Letter grading.

270. Joint Seminar: Neuroscience Lectures. (1)
Seminar, one hour. Formal lectures on current re-
search topics in neuroscience by speakers from na-
tional, international, and local neuroscience communi-
ties. S/U grading.

M287. Dynamics of Neural Microcircuits. (4) (Same
as Neuroscience M287.) Lecture, two hours; discus-
tion, two hours. Development of integrative under-
standing of neural microcircuits that underlie specific
functions of sensory processing, generation, and co-
ordination of motor activity, as well as generation and
modulation of neural rhythms. Letter grading.

296. Research Seminar and Journal Club. (1) Sem-
inario, one hour. Seminar and journal club with focus on
current research topics and activities occurring within
department. S/U grading.

NEUROLOGY
David Geffen School of Medicine
C-153 Reed Neurological Research Center
Box 951769
Los Angeles, CA 90095-1769

Neurology
310-825-5521
S. Thomas Carmichael, Jr., MD, PhD,
Chair
Charles C. Flippen II, MD, Vice Chair,
Education
P. Lea Nghiemphu, MD, Vice Chair,
Academic Affairs

Marc R. Nuwer, MD, PhD, Vice Chair,
Finance and Administration
Christopher DiGiorgio, MD, Vice Chair,
Olive View-UCLA
Mark J. Morrow, MD, Vice Chair,
Harbor-UCLA
Claude G. Wasterlain, MD, Vice Chair,
VA Greater Los Angeles Healthcare System
Jeffrey Saver, MD, Senior Associate
Vice Chair

Overview
Neurology is the medical science dealing with
the normal and diseased nervous system. Neu-
rological 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 Depart-
ment of Neurology and the Reed Neuro-
ological Research Center provide means for 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 ex-
amination 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 candi-
dates are trained in both the basic and clinical
laboratories.
For more details on the Department of Neuro-
logy and courses offered, see the department
website.
Neurology faculty information is available from the
department.

Neurology
Lower-Division Courses
19. Fischlux 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 UCL.A. 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-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
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 finalize course 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 corequite: Honors Collegium 101E.
Limited to junior/senior USIE facilitators. Individual
study in regularly scheduled meetings with faculty
mentor required and 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 requisite: course
188SB. Limited to junior/senior USIE facilitators. Indi-
vidual study in regularly scheduled meetings with fac-
ulty mentor while fulfilling USIE 88S course. Indi-
vidual contract with faculty mentor required. May not
be repeated. Letter grading.

199. Directed Research in Neurology. (2 to 8) Tuto-
rial, 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
Los Angeles, CA 90095-1761
Neuroscience Undergraduate IDP
310-206-2349
E-mail contact
Stephanie A. White, PhD, Chair
Christopher S. Colwell, PhD, Vice Chair

Faculty Committee
Scott H. Chandler, PhD (Integrative Biology
and Physiology)
Christopher S. Colwell, PhD (Psychiatry and
Biobehavioral Sciences)
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 sys-
tem function at many levels of analysis, includ-
ing molecular, cellular, synaptic, network, com-
putational, 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

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 5A, 5B, and 5C.

Policies
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.

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 for majors, preferably equivalent to Life Sciences 7A, 7B, and 7C, one year of general chemistry with laboratory for majors, one semester of organic 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.

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:


Molecular, Cell, and Developmental Neuroscience: Neuroscience M145, C177, 180, 181, 182, 186, M187, 191C, Physics C186, Physiological Science M106, 121, C126, C127, M145, 146, 147, 174, 175, Psychology 119A, 162, or M166.


Capstone Research Options: (1) Neuroscience 101L or Psychology 116A or 116B, (2) Neuroscience C177 and 192CX, or (3) Neuroscience 198A and 198B, or 199A and 199B. Students who select the Neuroscience 101L or Psychology 116A or 116B 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, 198A and 198B, or 199A and 199B options must take three upper-division electives, one from each elective option.

Policies
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.

Honors Program
The honors program provides exceptional Neurosciencemajors with the opportunity to do research culminating in an honors thesis. 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
Non-science 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...
M101C. Neuroscience: From Molecules to Mind—Behavioral and Cognitive Neuroscience. (5) (Same as Molecular, Cell, and Developmental Biology M175A or Psychological Science M180A) or Psychological 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 who are world-renowned 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. Limited to Neuroscience majors. General overview of field of neuroscience to serve as introduction to Neuroscience major. Topics covered include brief history of field, basic neurophysiology and neuroanatomical research methods, experimental design, data analysis, and career prospects. May not be applied toward elective requirements for major. 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 10 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. May be repeated for maximum of 4 units. Individual honors contract required; consent 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 courses M101A, M101B, M101C or M172C. Individual contract required; consent Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M101A. Neuroscience: From Molecules to Mind—Cellular and Systems Neuroscience. (5) (Same as Molecular, Cell, and Developmental Biology M175A, Physiological Science M180A, and Psychology M117A.) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 30A (14C may be taken concurrently). Lec, Lab: M101B or M101C may be taken concurrently. Not open for credit to students with credit for Psychology 116. Introduction to laboratory methods in neuroscience. Laboratory exercises range from molecular and cellular biology to behavioral neuroscience. Students gain experience with important methodological and experimental approaches in neuroscience. Letter grading.

102. Introduction to Functional Anatomy of Central Nervous System. (4) Lecture, three hours; laboratory, 90 minutes. Requisite: Life Sciences 2 or 7C. Corequisite: course M101A. Not open to freshmen. Overview of human nervous system, brain development, anatomy and function, pathology. Introduction to brain circuits involved in fear and anxiety, memory, sensory, motor activities, P/NP or letter grading.


M119N. 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. Coverage of anatomy and physiology of visual processing from retina to visual cortex through lectures, extensive reading, and discussions. P/NP or letter grading.

CM123. Neurobiology of Sleep. (4) (Formerly numbered M123.) (Same as Physiological Science CM123.) Lecture, three hours; discussion, one hour. Requisites: courses M101A and M101B or Physiological Science 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/wakefulness, and homeostatic and circadian regulation. 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. Background on science of sleep and circadian rhythms, completion of sleep and circadian-related science. 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.

142. Neurophilosophy: Introduction and Assessment from Neuroscience Perspective. (4) Lecture, three hours. Requisite: course M101A. Overview of philosophy of mind, philosophy of science. 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. Examination of various approaches to understanding and explaining human consciousness and currently lively debate about whether scientific understanding of it is possible. Neuropsychology as a 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 neuroscience findings as well as applying philosophical problem-solving approaches 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; laboratory, two hours. Requisites: courses M101A or Physiological Science 111A or M180A. Examination of central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.


M161. Personal Brain Management. (4) (Same as Molecular, Cell, and Developmental Biology M132.) Requisite: M101A or M101B. Requisites: background in either biology or chemistry. Limited to students in College Honors Program. Development of personal history and environmental exposures. Introduction to key principles of behavior change, illustrating how important health-related behaviors 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 M103J) 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 theories of 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. Letter grading.


Graduate Major
Neuroscience PhD

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 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 intra- cellular signaling, cell-cell communication, neurogen- esis and migration, synapse formation and elimination, programmed neuronal death, and neurotropic factors. S/U or letter grading.

202. Cellular Neurophysiology. (4) (Same as Neurobiology M200F and Physiology Science M202.) Lecture, three hours; discussion, two hours. Requi- sites: Physiological Science 111A (or M180A or Physics 5C). 150 Advanced course in cellular physiol- ogy of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, drug-re- ceptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

203. Anatomy of Central Nervous System. (4) (Same as Bioengineering M263.) Lecture, 75 minutes; discussion/laboratory, two hours. Prior to first labora- tory meeting, students must complete Bloodborne Pathogens training course through UCLA Environment, Health and Safety. Study of anatomical loca- tions of and relationships between ascending and de- scending sensory and motor systems from spinal cord to cerebral cortex. Covers cranial nerves and brain stem anatomy along with ventricular and vascular systems of the brain. Subcortical forebrain areas covered in detail. Integrated anatomy laboratory in- cludes brain dissections and overview of tools for MRI analysis. Letter grading.

204. Synapses, Cells, and Circuits. (4) (Same as Neurobiology M200A.) Lecture, three hours; labora- tory, two hours. Fundamental topics concerning sub- cellular, cellular, and structural organization of nervous system. Specific topic areas include neuronal ultra- structure, cellular neurobiology, neuroanatomy, neural circuitry, and imaging. Letter grading.

205. Systems Neuroscience. (4) Lecture/discussion, four hours. Introduction to fundamentals of systems neuroscience, with emphasis on integration of molec- ular mechanisms, cellular processes, anatomical cir- cuits, and behavioral analysis to understand function of neural systems. Letter grading.

M206. Neuroengineering. (4) (Same as Bioengi- neering M260 and Electrical and Computer Engi- neering M265S.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathe- matics 22A, Physics 1B or 2C. Introduction to princi- ples and technologies of bioelectricity and neural signal recording, processing, and stimulation. Topics include bioelectricity, electrophysiology, electrical poten- tials, local field potentials, EEG, EOG, intracellular and extracellular recording, microelectrode tech- nology, neural signal processing (neural signal fre- quency bands, filtering, spike detection, spike sorting, stimulation artifact removal), brain-computer inter- faces, deep-brain stimulation, and prosthetics. Letter grading.

207. Integrity of Scientific Investigations: Education, Research, and Career Implications. (2) Discussion, two hours. Designed for graduate students. Debate on topics related to ethical conduct of scientific investiga- tion, with emphasis on critical thinking. Topics include scientific misconduct, mentoring, data ownership, au- thorship, 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: Neuroscience. (1) Seminar, two hours. Critical dis- cussion and analysis of current literature for various neuroscience research topics. Only one topic may be taken twice for credit and applied toward neurosci- ence graduate requirements. S/U grading.

M220. Biology of Learning and Memory. (4) (Same as Neurobiology M202G 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 em- phasizes emerging findings that take advantage of novel groundbreaking models. Letter grading.

M221. Sensory Systems Neurobiology. (4) (Same as Neurobiology M202C.) Lecture, two hours; discussion, two hours. Fundamental topics in sensory systems neurobiology, including sensory transduction, taste and olfaction, audition, vision, and somatosensory system. Letter grading.

CM223. Neurobiology of Sleep. (4) (Same as Physio- logical Science CM223S.) Lecture, three hours; discus- sion, 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, and homeostatic regulation of sleep. How our sleep needs shaped by our evolu- tionary 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 circa- dian rhythms, completion of Physiological Science C126 is highly recommended. Concurrently scheduled with course CM123. Letter grading.
For more details on the Department of Neurosurgery, see the department website.

Neurosurgery faculty information is available from the department.

**Neurosurgery**

### 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 Neurosurgery. (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.

---

**Nursing**

School of Nursing

2-147 Factor Building

Box 951702

Los Angeles, CA 90095-1702

Nursing

310-825-7181

Department e-mail

Lin Zhan, RN, PhD, FAAN, Dean

Lauren Clark, RN, PhD, FAAN, Associate Dean, Academic and Student Affairs

Holli A. DeVon, RN, PhD, FAHA, FAAN, Associate Dean, Research

Robert J. Lucero, RN, MPH, PhD, FAAN

Associate Dean, Diversity, Equity, and Inclusion

---

### Faculty Roster

#### Professors

- Dong Sung An, MD, PhD
- 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)
- Holli A. DeVon, RN, PhD, FAHA, FAAN (Audrienne H. Moseley Professor of Community Health Research)
- Karen H. Glys, RN, PhD
- Mary Sue V. Heilemann, RN, PhD, FAAN
- Felicia S. Hodge, DrPH
- Jian Li, MD, PhD
- Paul M. Macey, PhD
- Nancy A. Pike, RN, PhD, CPNP-AC, FAAN
- Wenda A. Robbins, RN, PhD, NP, FAAN, FAANFAOHN (Audrienne H. Moseley Professor of Biological Nursing Science)
- Dorothy J. Wiley, RN, PhD, FAAN

#### Professors Emeriti

- Nancy L. R. Anderson, RN, PhD, NP-C, AOCN, FAAN
- Lisa K. Badr, RN, DNPSc, PNP-C, FAAN
- Mary P. Cadogan, DrPH, GNP-BC, FAAN, FGSA
- Betty L. Chang, RN, DNPSc, FNP-C, FAAN
- Peggy A. Compton, RN, PhD, FAAN
- Lynn V. Doering, PhD, FAHA, FAAN (Audrienne H. Moseley Professor Emeritus of Nursing)
- Jo-Ann O. Eastwood, RN, PhD, CNS, ACNP-BC, FAHA, FAAN
- Jacquelynn H. Flasekerud, RN, PhD, FAAN
- Anna F. Gawinski, RN, PhD, ACNP-BC CNS-BC, FAAN
- Deborah Konik-Giffen, 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, DPhl, PhD
- Sharon J. Reeder, RN, PhD, FAAN
- Linda P. Sarna, RN, PhD, FAAN (Lulu Wolf Hassenplug Professor Emeritus 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, CNM, PhD, FAAN
- Suzette V. Glasner-Edwards, PhD, in Residence
- Naiol M. Hamilton, PhD, MSN, APRN-BC
- Eufemia Jacob, RN, PhD
- Eunice Eunkyung Lee, RN, PhD, FAAN
- Sophie Sokolow, PhD, MPH

#### Assistant Professors

- Eden R. Brauer, RN, PhD
- Kristen R. Choi, RN, MS, PhD
- Nana M. Hamilton, PhD, MSN, APRN-BC
- Yeonsu Song, PhD, RN, FNP-C

#### Lecturers

- Theresa A. Brown, RN, MSN, ACNP-BC, AACC, FAANP
- Mary M. Canobbio, RN, MN, FAAN
- Barbara L. Demann, RN, MSN, CNS, ACNP
- Elizabeth L. Dixon, RN, MSN, MPH, PhD
- Stacey D. Green, RN, MSN, DNP, GNP-BC, PHN, NPSPNP, 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. Miere, RN, MSN, CCRN, CNL

#### Adjunct Professors

- Mary Lynn Brecht, PhD
- Catherine L. Carpenter, PhD

#### Adjunct Associate Professors

- Anita R. Braalick, RN, PhD, CNM
- Nancy Jo Bush, RN, MN, MA, AOCN, ONP, FAAN
- Maria E. Ruiz, RN, PhD
- Benissa E. Salem, RN, MSN, PhD, CNL, PHN
- Rita L. Secora, RN, PhD
- Mary Ann Shinnick, RN, PhD, MN, ACNP-BC, CCNS
- Elizabeth Anne Thomas, RN, PhD, ANP-BC, COHN-S, FAANOHN

#### Adjunct Assistant Professors

- Emma Lyn M. Cuenca, RN, DNP, CCRN, CSC, CNS
- John Lazar, RN, PhD, FNP-BC

### 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 pro-
cess. 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

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 Transfer Curriculum (IGETC). Students must have a grade of C or better in each requisite course and an overall grade-point average of 3.5 or better.

Two recommendation forms and a written statement of purpose are also required. Diverse life experiences, including previous employment, volunteer work, and community service that reflect leadership, responsibility, multicultural involvement, multilingual abilities, and other unusual skills and knowledge are evaluated for all applicants. Consideration is also given to students who are socially, economically, and educationally disadvantaged. Completed applications should reflect clearly identified career goals and documentation of potential for nursing practice.

Preparation for the Major
Required: Chemistry and Biochemistry 14A, 14B, 14C, Communication 1 or 10, Life Sciences 7A, 7C, Mathematics 3A or 31A, Microbiology, Immunology, and Molecular Genetics 10, Nursing 3, 10, 13, 20, 50, 54A, 54B, Psychology 10.

Transfer Students
Transfer applicants to the Nursing major with 90 or more units must complete the following introductory courses prior to admission to UCLA: calculus, communications, human anatomy, human physiology, inorganic and organic chemistry, cells, tissues, and organs, microbiology, molecular biology, and introductory or general psychology.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Policies
Students may request to pursue a minor in a related field if the coursework can be completed within the 216-unit limit.

The curriculum at UCLA must be completed with a minimum overall grade-point average of 2.0 (C) or better in all courses taken while a student in the School of Nursing.

Each required nursing course in the school must be completed with a grade of C or better (C– grade is not acceptable).

Graduate Major
Doctor of Nursing Practice

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Master of Science in Nursing

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 Science in Nursing/Master of Business Administration

Nursing MS, PhD

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Nursing

Lower-Division Courses
3. Human Physiology for Healthcare Providers. (5) Lecture, three hours; laboratory, two hours. Basic understanding of human physiological processes, with emphasis on applications to patient evaluation and care. Concepts underlying normal function and how alterations in these normal functions can affect body systems. Knowledge and understanding of these normal human processes is basic to providing quality nursing care. Examination of system variations across lifespan. Letter grading.

10. Introduction to Nursing and Social Justice I. (2) Lecture, two hours. Within context of history of nursing, introduction to practice of nurses, including role of advocacy. Discussion of effective use of self as professional nurse in relation to ethics, cultural competence, and human diversity. Introduction to ethical principles (justice, autonomy, veracity, beneficence, confidentiality) and professional values (altruism, autonomy, human dignity, integrity, and social justice) in relation to nursing practice throughout history in health/illness and end-of-life contexts. Letter grading.

13. Introduction to Human Anatomy. (5) Lecture, three hours; laboratory, two hours. Structural presentation of human body, including musculoskeletal, nervous, circulatory, respiratory, digestive, renal, and reproductive systems. Laboratory uses virtual cadaver dissection and examination. 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 Nursing and Social Justice II. (2) Lecture, two hours. Requisite: 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 (justice, au-
tonomy, veracity, beneficence, confidentiality and professional values (altruism, autonomy, human dignity, 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 contexts in relation to paternalism for professional nurses working with diverse patient populations in the 21st century. Letter grading.

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. Fundamentally, epidemiology seeks to control health problems in communities and institutions. Letter grading.

54A. Pathophysiology. (4) Lecture, three hours; laboratory, three hours. Requisites: courses 3, 13 taken within past three years. Designed to provide students with basic understanding of pathophysiological changes that occur within internal environment of individual. Concepts underlying pathologic changes across all body systems are presented. Understanding these alterations is basic to providing quality nursing care. System variations across lifespan addressed. Letter grading.

54B. Pathophysiology II. (2) Lecture, two hours. Requisite: course 54A. Designed to provide students with understanding of pathophysiological changes that occur at cellular, tissue, and organ level across selected body systems, including environmental influences on individual. Presence of dysfunction or disease of selected systems is provided as rationale for nursing diagnosis and therapeutic interventions. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (sponsored research under faculty direction, three hours per week per unit). Entry-level research for lower-division students under guidance of faculty mentor. Students must have a minimum of 90 units completed and have permission of instructor. Individual contract required; consult Undergraduate Research Center. May be repeated, P/NP grading.

Upper-Division Courses

115. Pharmacology and Therapeutics. (5) Lecture, four hours; requisites: courses 54A, 54B. Clinical pharmacology for undergraduate nursing students, beginning with emphasis on basic pharmacologic principles. Focus on major drug classes and their clinical uses. Emphasis on pathologic states or events in specified populations. Fundamentally, epidemiology seeks to control health problems in communities and institutions. Analysis of multifaceted assessment, health history, and diagnostic reasoning, and emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, pharmacology, pharmacology, therapeutic interventions, evidence-based practice, patient safety, and communication concepts as applied to care of older adult and surgical patients. Supervised achievement with setting of multidisciplinary teams directing care of medical-surgical clinical units, with focus on clinical interpretation and diagnostic reasoning and management of acute and emergency problems. Integration of knowledge of pathophysiology, pharmacology, pharmacology, therapeutic interventions, evidence-based practice, patient safety, and communication concepts as applied to care of medical-surgical patients, 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 used during clinical experiences. Letter grading.


2155. 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 around globe. Students, through collaborative projects with peers around world, reflect on how globalization shapes and transforms local communities and national cultures. Concurrent registration required; consent Undergraduate. May be repeated, P/NP grading.

160. Secondary Prevention. (4) Lecture, four hours. Requisites: courses 150A, 150B, 152B. Screening and early detection of illness to prevent chronic or acutely developing illness. Expanding on concepts of health promotion and using nursing process, application of nursing role in providing care to individuals and their families to screen, diagnose, plan, implement, and evaluate course of illness. Letter grading.

162A. Foundational Concepts for Tertiary Prevention and Care of Medical-Surgical Patients and Families. (4) Lecture, four hours; requisites: courses 150A, 150B, 152A, 152B. Focuses on theoretical foundation of tertiary, complementary, and terminal care as they relate to nursing care management of complex and comorbid conditions, and their families. 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. Diagnosis and management of health problems for selected critical illness, acute and chronic, in medical-surgical clinical units, with emphasis on social, cultural, and developmental influences. Letter grading.

162C. Tertiary Prevention and Care of Complex Medical-Surgical Patients and Families. (6) Lecture, four hours (10 weeks); clinical, 24 hours (5 weeks). Requisite: course 162A. Designed to provide students with management of acute and chronic health problems of acutely ill adults. Content in assessment, health history, and diagnostic reasoning with emphasis on social, cultural, and political influences. Integration of pathophysiology, pharmacology, stress and adaptation, adult development theory, therapeutic interventions, evidence-based practice, patient safety, and communication concepts as applied to care of acutely ill medical surgical patients, with complex and comorbid conditions, and their families. 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. Diagnosis and management of health problems for selected critical illness, acute and chronic, in medical-surgical clinical units, with emphasis on social, cultural, and developmental influences. 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. Evidence-based knowledge of pathophysiology, pharmacology, therapeutic interventions, and communication concepts as applied to childbearing families, with application of nursing concepts, evidence-based practice, problem-solving strategies, and critical thinking. Supervised clinical practicum experience within setting of multidimensional team, with focus on application of theory in clinical setting, assessment and diagnosis of data for purpose of planning, implementing, and evaluating nursing care for infants, children, and adolescent patients with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, pharmacology, therapeutic interventions, and family-centered care concepts as applied to care of infants, children, and adolescents. Application of nursing process, evidence-based practice, problem-solving, and critical-thinking strategies to improve patient safety, care quality, and health outcomes. Supervised practicum experience within setting of multidimensional team in clinical settings to enhance assessment, diagnosis, and management of data for purpose of planning, implementing, and evaluating nursing care for infants, children, and adolescent patients. Letter grading.


166. Advanced Leadership and Role Integration. (5) Lecture, five hours; Requisites: courses 161, 162C, 163, 164, 165. Leadership and management theories and models, resource allocation and management, delegation and teamwork, conflict resolution, healthy work environments, legal and ethical aspects of professional practice, evaluation of professional practice, patient safety and quality improvement, accreditation process for health care systems, and contemporary issues in workplace. Emphasis placed on integration of all professional role behaviors, application of research, evidence-based practice, and leadership management of patient-centered care as transition is made from school to professional practice. Letter grading.

169. Clinical Internship: Integration. (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 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 maintenance, and management of symptoms. Letter 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 health promotion and disease prevention at level of individuals, families, communities, and systems. Clinical practicum concentrates on population-based public health nursing in culturally diverse settings in health maintenance, health assessment, health interventions, and public service agencies. Clinical practicum activities include health promotion and disease prevention at level of communities, populations, and systems, both domestically and globally. Letter grading.

173. Introduction to Nursing Research and Writing II. (5) Formerly numbered 173D. Lecture, five hours. Requisite: English Composition 3. Introduction to planning research project based on simple questions. Review of components of research activities: specific aims and study purposes, variable definition, sample selection, data collection tools, data analyses, and ethical conduct in research studies. Examples of research used as models to demonstrate steps of research process, provide in-depth examination of research, and emphasis on comprehension of research terminology and concepts that are part of each step of research process. Students critique published research. Study by example of relationship between theory and nursing research. Satisfies Writing II requirement. Letter grading.

174. Physical Assessment. (4) Lecture, three hours; laboratory, three hours. Requisites: courses 3, 12. Designed to provide principles of assessment and synthesis of physical assessment skills and knowledge covering lifespan. Individual study, use of audiovisual aids, physical assessment skills practice in laboratory, and required test are mandatory. Letter grading.

175. Physical Assessment for Advanced Practice. (4) Lecture, three hours; laboratory, three hours. Comprehensive review and synthesis of 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 detailed physical examination techniques. Individual study, use of audiovisual aids, physical assessment skills practice in laboratory, and required test are mandatory. Letter grading.

184. Special Topics in Nursing. (4) Lecture, three hours; discussion, one hour. Limited to junior/senior Nursing majors who have completed required or experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. 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. 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 Nurs- ing. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Cumnating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.


202. Philosophy of Nursing Science. (4) Lecture, four hours. Focus on philosophy of nursing science by exploring geneologies of thought that underpin epistemological assumptions and ethical paradigms. Examination of philosophical concepts that shape discipline of nursing in relation to their influence on scientific reasoning and methods of inquiry, both qualitative and quantitative, use of data to create new knowledge. Analysis of contemporary schools of thought (modern and postmodern) in relation to professional practice as related to nursing research. Emphasis on integration of scientific and nursing knowledge as well as role of nurse scientist as leader in policy development in greater health care climate. Letter grading.

203A. Basic Statistics and Fundamentals for Analy- sis. (4) Lecture, four hours. Preparation: one upper-division statistics course. Introduction to applied statistics, including design, analysis of variance, correlation techniques, and regression. Sample size calculations, parametric versus nonparametric tests, and concepts of database design, management using statistical packages. Letter grading.


204. Research Design and Critique. (4) Lecture, nine hours; discussion, 90 minutes. Complex research designs and analysis of multiple variables and research utilization. Emphasis on techniques for control of extraneous variables, validity of test and measure, and interpretation of research 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 Re- search. (4) Lecture, four hours. Requisite: 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 interpretation. Scientific rigor and ethical concerns for research with human participants critically examined. Letter grading.

205C. Advanced Qualitative Research: Grounded Theory Methodology I. (4) Lecture, four hours. Requisite: course 205A or equivalent approved by instructor. Students design and implement qualitative research project based on grounded theory methodology. Symbolic interactionism and constructivism as foundation with grounded theory as guide to recruit small sample, collect data through interviews and observations, and simultaneously analyze data through inductive coding and memos. Employment of constant comparison and examination of key elements of self-reflexivity and research ethics. Letter grading.

205G. Advanced Qualitative Research: Grounded Theory Methodology II. (4) Lecture, four hours. Requisites: courses 205A, 205B, or equivalent as approved by instructor. Advanced techniques for simulating collection and analysis of qualitative data. Employment of advanced levels of coding based on constructivist grounded theory methodology and situational analysis. Development of conceptual formula- tion and grounded theory project data collected and analyzed as part of course. 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 in nursing and contextual issues that continue to influence development of nursing knowledge and nursing science, Application of skills fundamental to concept analysis and development in nursing and integral to use in nursing theory and research. Letter grading.

206B. Nursing Theory Development. (2) Formerly numbered 202X. Lecture, two hours; discussion, one hour. Requisites: courses 202, 206A, 210A, 210B. Introduction to wide array of qualitative 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 and of 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 encounter in caring for culturally and biologically diverse populations of individuals related to ethnicity and gender. Provides conceptual base that nurses can use in clinical practice, research, teaching, and administration. Letter grading.

210A. Critical Review of State of Science in Nursing Research. (3) Lecture, three hours. Requires: doctoral standing or consent of instructor. In-depth exploration of state of science for health psychology, biobehavioral, and biophysical processes research. Students explore research on particular phenomena, analyze current and historical scholarly findings in literature, critique significance of findings, and develop a research focus for the dissertation. Letter grading.

210B. State of Science in Nursing: Critical Synthesis of Literatures. (3) Lecture, three hours. Requires: doctoral standing or consent of instructor. In-depth analysis of published research relevant for health service, biological, and biobehavioral science in relation to health. Focus is deepened and refined as students identify gaps in state of science and scholarship relevant to research area. Students broaden exploration and 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 in the promotion of women's health across the lifespan. Emphasis on research related to health behaviors and sexual health during reproductive years. Clinical topics include gynecology, family planning, pregnancy, and postpartum care, with emphasis on health promotion of women with special health issues related to menopause. Letter grading.

212. Family Healthcare Perspectives. (2) Lecture, two hours. Overview of conceptual frameworks related to contemporary family structure and functioning, with emphasis on health care for family. 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.

213. Worker Health and Safety: Role and Theory. (4) Lecture, two hours. Theories of occupational health in nurse practitioner professional role, including care for workers and high-risk environmental groups. Letter grading.


218. (4) Lecture, four hours. Requires: course 218B. Project management; organizational, interpersonal, and management skills. Emphasis on issues affecting local, national, and international healthcare management. Letter grading.


219A. Essentials of Accounting and Budgeting in Healthcare Organizations. (4) Lecture, four hours. Theories of management, organization, and administration presented in relation to techniques of accounting, budgeting, finance, and healthcare economics. Focus on budgets and concepts followed by practical applications within variety of healthcare settings. Letter grading.


220. Theories of Instruction and Learning in Nursing. (3) Lecture, two hours. Theories of learning, curricula, and program development, and principles and techniques of evaluation. Examination of educator role of advanced practice nurses 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.

223. Childhood Development: Research and Application to Nursing Practice. (3) Lecture, four hours. Critique and evaluation of current research and theory in child development and their application to care of children. Provides scientific basis for understanding human growth and development, current research and practice, and managing barriers to growth and development throughout childhood. Letter grading.

224. Advanced Pharmacology for Advanced Practice Registered Nurses. (3) Lecture, four hours. Requires: course 231. In preparation for prescriptive authority, focus on major drug classes and their mechanisms of action, pharmacokinetics, adverse effects, and clinical uses. Advanced knowledge of pharmacology for clients/patients 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). Course 225A is requisite to 225B. Emphasis on pharmacology of agents related to clinical knowledge and skills necessary for patient-centered care with stable acute or chronic conditions. Focus on major pharmacological classes, their mechanisms of action, pharmacological effects, and adverse effects. Discussion of quality and safety of pharmacological interventions in clinical practice, with emphasis on collaborative teamwork (i.e., nurses, pharmacists) and evidence-based practice (e.g., current guidelines). Letter grading.

226. Seminar: Aging Research. (1 to 2) Seminar, two hours. Preparation: completion of first-year coursework. Discussion and conceptualization of gerontological nursing concepts within context of specialty areas of research (acute care, oncology, occupational health, and gerontological nursing). Provides opportunities for students to develop research interests as they read and discuss articles that contribute to evolving dissertation research and to examine state of science in their area of focus. Core faculty from all specialty areas participate in discussions. May be repeated for maximum of 10 units. S/U grading.

227. Ethnicnegri Nursing. (4) Lecture, three hours. Requires: course 209. Identification of unique content related to minority aging using Giger and Davidovich “Cultural-Ancestral.” Assessment of the transnational view of transcultural nursing viewed as culturally competent practice that is both client centered and research focused. Exploration of difference between Eurocentric lens and gerontologic lens when providing nursing care to ethnically and racially diverse elders. In-depth examination of issues related to conducting research with elders who are racially and ethnically diverse in specialty of healthcare setting. Focus on conducting research, issues surrounding informed consent of minority elders, and data collection techniques, including critique and use of data collection instruments used in community and long-term care settings, behavioral observations, interviews, and surveys. Letter grading.

228. Research Methods for Aging Populations. (4) Lecture, three hours. Requires: courses 204, 205A, 207, 210B, 218D, 220. In-depth examination of issues related to conducting research with elders in variety of healthcare settings. Study design for conducting research with elders in variety of healthcare settings. Focus on conducting research, issues surrounding informed consent, planning for mortality and morbidity, data collection techniques for frail elders, including use of assessment tools used in community and long-term care settings, behavioral observations, interviews, and surveys. 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 professional responsibilities. Topics include legal, political, and moral aspects of sexual assault and abortion; economics and cultural considerations involved in end of life decision making; and public and professional interpretation of what constitutes conflict of interest. Consideration of how medical decisions are influenced by context of care (system-based practice) and emotional responses and preferences (professional judgment). S/U grading.

230A. Advanced Pathophysiology I. (3) Lecture, three hours. Requires: courses 3, 13, or equivalent taken within last three years. Course 230A is requisite to 230B. In-depth examination of general pathophysiological processes that underlie human illness and disease across all body systems including cellular adaption, fluid and electrolyte balance, acid-base balance, immunity, inflammation, infection, wound healing, genetics, nutrition, temperature regulation, somatosensory and pain processing, stress and disease, anxiety and activity and fatigue regulation. Detailed study and analysis of manifestations of, and re-
Lecture/discussion, four hours. Pathophysiological concepts and nursing management of older adults who are healthy or who have disability and/or chronic illness. Nursing aspects of selected dysfunctions and implications for advanced practice in gerontological nursing. 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 these in major body systems. Examination of manifestations of, and responses to, processes of cellular and molecular pathology at cellular, tissue, system, and human levels with implications for advanced practice registered nursing. Letter grading.

232. Human Responses to Aging and Chronic Illness. (2 or 4) Lecture/discussion, four hours. Pathophysiological concepts and nursing management of older adults who are healthy or who have disability and/or chronic illness. Nursing aspects of selected dysfunctions and implications for advanced practice in gerontological nursing. Letter grading.

233. Human Responses to Aging and Chronic Illness. (4–6) Lecture, four hours. Biopsychosocial concepts and nursing management of healthy, disabled, and/or chronically ill older adults, addressing pathophysiological aspects of common health problems of infants, children, and adolescents. In clinical settings. Presentation of condition or disease, etiology and incidence, clinical findings, differential diagnosis, pharmacologic and treatment management, complications, and preventable and patient education measures. Examination of primary child health delivery model reliant on evidence-based knowledge, practice protocols, consultation, referral, and community resources. Letter grading.

237A-237B. Assessment and Management in Pediatric Acute Care I, II, (3–3) Lecture, three hours. Two-course sequence for acute care pediatric nurse practitioner or other learning activities demonstrate application and evaluation of evidence-based research and clinical guidelines in pediatric population. Letter grading.

237A. Requisites: courses 238A, 238B. Corequisite: course 234A. Prerequisites: courses 238A, 238B, 237A, 437A. Corequisite: 437B.

238A. Assessment and Management in Pediatric Primary Care. (4) Lecture, four hours. Requisite: course 238B. 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 of infants, children, and adolescents in primary healthcare settings. Presentation of condition or disease, etiology and incidence, clinical findings, differential diagnosis, pharmacologic and treatment management, complications, and preventable and patient education measures. Examination of primary child health delivery model reliant on evidence-based knowledge, practice protocols, consultation, referral, and community resources. Letter grading.

237A-237B. Assessment and Management in Pediatric Acute Care I, II, (3–3) Lecture, three hours. Two-course sequence for acute care pediatric nurse practitioner or other learning activities demonstrate application and evaluation of evidence-based research and clinical guidelines in pediatric population. Letter grading.

235A. Adult/Gerontology Primary Healthcare for Advanced Practice Registered Nurses I, II, III, (4–4–4) Lecture, four hours. Requisites: courses 200, 224, 231. Course 235A is requisite to 239B, which is requisite to 239C. Assessment, diagnosis, and management of common episodic and chronic adult health problems and conditions, including urgent care, for family and adult/gerontology primary care nurse practitioners. Application and evaluation of epidemiology and interventions guidelines in diverse adult populations (late adolescent through old age). Analysis of health promotion, maintenance, and restoration approaches in special populations, mental, cultural, gender, life-stage perspectives, and functional impairment. Letter grading.

242F. Biobehavioral Foundations of Neuropsychiatric Nursing Care. (4) Lecture, four hours. Biologic and behavioral research from variety of disciplines, including nursing, for application to treatment of neuropsychiatric dysfunction. Examination of research under development to test cognitive, affective dysfunctions, with emphasis on developing a biobehavioral nursing approach. Letter grading.

245. Theoretical Foundations of Clinical Nurse Specialist Practice. (4) Lecture, four hours. Theoretical foundations of clinical nurse specialist practice, including systems theory, behavioral theories, consultation theory, change theory, and models of reasoning. Analysis of application of relevant theories to clinical nurse specialty practice roles in healthcare systems through case-study analysis, with focus on application to clinical practice settings that include culturally diverse populations. Letter grading.

249. Meeting Health-Related Needs in Underrepresented 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, uninsured, marginalized populations. Application of current evidence-based strategies and interventions designed to address these clinical problems and improve outcomes in culturally competent manner. Presentations of 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 political forces in 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 communities. Concepts are further illustrated within context of history of nursing, with emphasis on human rights, civil rights, and patient rights. Discussion of evolution of professional nursing within healthcare systems and health policy to ethical principles, cultural competence, evidence-based practice, and human diversity. Letter grading.

252A. Health Promotion: Growth and Development in Culturally Diverse Populations. (2) Formerly course 252A. Lecture, three 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. Includes assessment of health including issues related to contraception and parenting; well-child care, school-age health, and chronic illness prevention strategies for young and middle-aged adults and elderly who live and interact within institutions. Analysis of influence of overarching political, societal, and governmental systems within U.S. Letter grading.


254A. Theoretical Foundations of MSN/MECN Role and Fundamentals of Professional Nursing Lecture. (2) Lecture, three hours; laboratory, three hours. Focus on theoretical foundations of primary, secondary, and tertiary prevention as they relate to nursing care management in acute care settings for master’s entry clinical nurse (MECN). Emphasis on application of relevant theories to MECN practice roles in health care systems through case study analysis, with focus on application to clinical practice settings that include diverse populations. Introduction to concepts of communication, nursing process as clinical decision-making strategy, and critical thinking skills as essential to practice of professional nurse, experiences in nursing skills laboratory and in clinical settings. Introduction to mathematical calculations and terminology used in clinical setting. Letter grading.

257. Advanced Practice: Development and Application of Evidence-Based Research for MSN/MECN Role and Fundamentals of Professional Nursing Lecture/Clinical Skills Practicum II. (4) Lecture, three hours; laboratory, three 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 classroom settings around the world. Students, through collaborative projects with peers around world, reflect on how globalization shapes and transforms local communities and national cultures. Course scheduled with clinical practicum. Letter grading.

255. 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 classroom and clinical settings. Letter grading.

C255. 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 classroom and clinical settings. Letter grading.


295. Quality Improvement and Population-Based Quality of Care. (4) Lecture, four hours; requires: courses 286, 456A, 456B, 456C. Focus on principal elements related to quality improvement theories and ways in which quality management impacts delivery of patient-centered value-driven care. Discussion of concepts including improving system performance, efficient use of fiscal resources, quality improvement, and patient-population quality practice at organizational level. Review of methods to improve patient-care outcomes such as organizational support, effective teamwork, and quality improvement. Emphasis on quality management, patient safety, mitigating chances of adverse outcomes, evidence-based practice, cost-effective decision making, resource management, and external impacts on quality control. Satisfies course requirement for CNL certification. Letter grading.

288. 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. S/U or letter grading.


295A. Grant Writing I: Scientific Proposal Development. (3) Lecture, three hours. Requisites: courses 202, 205A, 206A, 210A, 210B, 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 role of external funding to facilitate doctoral and postdoctoral research, research activities, and professional development. Letter grading.

295B. Grant Writing II: Scientific Proposal Development. (4) Seminar, four hours. Requisites: courses 202, 205A, 206A, 210A, 210B, 210C. Designed to develop 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 on role of external funding to facilitate doctoral and post-doctoral research, research activities, and professional development. Letter grading.

295C. Nursing Science Seminars. (2) Seminar, two hours. Requisite: consent 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. Emphasis on role of external funding to facilitate doctoral and post-doctoral research, research activities, and professional development. S/U grading.

M296. Interdisciplinary Response to Infectious Disease Emergencies: Nursing Perspective. (4) (Same as Community Health Sciences M256, Medicine M256, 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, 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 conflicts of interest, data sharing, responsible authorship, 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, one hour; research/laboratory, three hours. Requisites: courses 202, 205A, 206A, 206B, 208, 210A, 210B, 210C, 210B, 210A, 210C, 210A, 210B, 210A. Special topics course for doctoral students who have completed required coursework and are preparing 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, 206. Seminars and research/laboratory-based experiences to assist students to prepare for careers in academic settings, with focus on research methodology and mentorship. S/U grading.

299D. Nursing Education Seminar. (2) Seminar, two hours; discussion, one to two hours. 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) 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.


402. Clinical Scholarship for Evidence-Based Practice. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Designed to provide DNP students with skills to critically appraise and translate evidence into practice. Evidence-based practice appraisal frame work. Emphasis on development of scientific information and support critical decision-making in health care. Students learn to formulate clinically relevant focused question(s) that guide their DNP project planning. Letter grading.


404. Analytical Methods for Evidence-Based Practice. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Advanced concepts on research methods and measurement strategies that are applicable to new approaches to evidence-based practice. Exploration of data collection, analysis, and ways in which quality management impacts delivery of patient-centered and value-driven care. Discussion of different modes of teaching and research/laboratory-based experiences to assist students to prepare for careers in academic settings. Letter grading.


406. Clinical Prevention and Population Health. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Enables DNP students to integrate, synthesize, and apply key concepts introduced in previous coursework in order to incorporate core components into practice. Evidence-based practice, clinical preventive service and health promotion, health systems and policy, and population health and community aspects of practice are emphasized through focus on current health issues. Letter grading.


409. Health Care Policy for Advocacy in Health Care. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Prepares students to become engaged and committed to leadership role in health policy. Students gain practical skills, and advocate to improve patients’ protection, and health care quality. Gained through analysis of existing policies, programs, and guidelines that govern health care services and practice. Within ethical framework, discussion of issues of equity, health disparities, access to care, and quality...
of care. Through development of policy brief, students recognize role of political activism as it relates to DNP practice. Letter grading.

410. Dissemination and Translation of Clinical Scholarship. (2) Lecture/seminar, two hours. Requi- site: doctoral standing. Students develop dissemination strategies and present their DNP scholarly project, self-reflection through career plan, and critical evaluation of their DNP program. Letter grading.

411. Information Technology for Nursing Practice. (3 or 4 each) Lecture, two hours. Requisite: doctoral standing. Prepares students to use knowledge and skills related to information technology and patient care technology. Prepares DNP graduates to apply new knowledge, develop new skills, and aggregate knowledge on impact to family, social, and cultural structures. For course 411A, students complete minimum of 40 direct clinical hours; for course 411B, they complete minimum of 160 direct clinical hours. Letter grading.

411A-411B. Adult/Gerontology Acute Care Nurse Practitioner Practicum I, II, (2–6) Clinic practicum, six hours (course 411A) and 16 hours (course 411B). Enforced requisite: course 411A. Corequisite: course 411B. Assessment and therapeutic interventions for selected health problems in acute 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.


411E. Adult/Gerontology Acute Care Nurse Practitioner Practicum V, (8 or 6 each) Clinic practicum, 15 to 24 hours. Inclusion of course 411E. Enforced requisite: course 411D. Corequisite: course 411E. Assess and therapeutic interventions for selected adult health problems in acute adult/gerontology populations. Developmental, health promotion, and maintenance needs of clients in relation to family, social, and cultural structures. Students complete minimum of 160 to 240 direct clinical hours. Letter grading.

411A-411B. Adult/Gerontology Acute Care Nurse Practitioner Practicum I, II, (2–6) Clinic practicum, six hours (course 411A) and 16 hours (course 411B). Enforced requisite: course 411A. Corequisite: course 411B. Assessment and therapeutic interventions for selected health problems in acute adult/gerontology populations. Developmental, health promotion, and maintenance needs of clients in relation to family, social, and cultural structures. Students complete minimum of 160 to 240 direct clinical hours. Letter grading.


411E. Adult/Gerontology Acute Care Nurse Practitioner Practicum V, (8 or 6 each) Clinic practicum, 15 to 24 hours. Inclusion of course 411E. Enforced requisite: course 411D. Corequisite: course 411E. Assess and therapeutic interventions for selected adult health problems in acute adult/gerontology populations. Developmental, health promotion, and maintenance needs of clients in relation to family, social, and cultural structures. Students complete minimum of 160 to 240 direct clinical hours. Letter grading.

411A-411B. Adult/Gerontology Acute Care Nurse Practitioner Practicum I, II, (2–6) Clinic practicum, six hours (course 411A) and 16 hours (course 411B). Enforced requisite: course 411A. Corequisite: course 411B. Assessment and therapeutic interventions for selected health problems in acute adult/gerontology populations. Developmental, health promotion, and maintenance needs of clients in relation to family, social, and cultural structures. Students complete minimum of 160 to 240 direct clinical hours. Letter grading.


411E. Adult/Gerontology Acute Care Nurse Practitioner Practicum V, (8 or 6 each) Clinic practicum, 15 to 24 hours. Inclusion of course 411E. Enforced requisite: course 411D. Corequisite: course 411E. Assess and therapeutic interventions for selected adult health problems in acute adult/gerontology populations. Developmental, health promotion, and maintenance needs of clients in relation to family, social, and cultural structures. Students complete minimum of 160 to 240 direct clinical hours. Letter grading.

Nursing / 699
knowledge in advanced practice role. Students complete minimum of 160 direct clinical hours. Letter grading.

439E. Adult/Gerontology Primary Care Nurse Practitioner Practicum V. (9) Clinic practicum, 27 hours. Enforced requisites: courses 439A through 439D. Designed to provide students with opportunity to provide selected acute and emergent problems of maternity-newborn patients, with emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, pharmacology, therapeutic interventions, and communication concepts as applied to care of childbearing families. Application of theory, nursing process, evidence-based practice, and problem solving in the interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating care for maternity and newborn patients, both as individuals and cohorts. Letter grading.

462. Maternity Nursing. (5) Lecture, three hours; clinical, six hours. Requisites: courses 204, 260, 465A, 465B. Pathophysiological and psychosocial aspects of selected acute, chronic, and emergent problems of maternity-newborn patients, with emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, and communication concepts as applied to care of childbearing families. Application of theory, nursing process, evidence-based practice, and problem solving in the interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating care for maternity and newborn patients, both as individuals and cohorts. Letter grading.


465C. Tertiary Prevention and Care of Complex Medical-Surgical Patients and Families. (8) Lecture, four hours; clinical, 12 hours. Requisites: courses 204, 260, 465B. Examination of nursing assessment and management of acute and chronic health problems of patients with complex and comorbid conditions. Focus on expanded knowledge of pediatric assessment and management of selected health conditions to assess patient and family needs. Letter grading.

Beth Y. Karlan, MD, Vice Chair, Women’s Health Research
Otoniel M. Martinez, PhD, Vice Chair, Academic Affairs
Lauren Nathan, MD, Vice Chair, Education
Jeaninne Rahimian, MD, Vice Chair, Clinical Affairs
Christine H. Holschneider, MD, Vice Chair, Olive View-UCLA
Sarah J. Kilpatrick, MD, PhD, Vice Chair, Cedars-Sinai
Erin N. Saleeby, MD, MPH, Vice Chair, Harbor-UCLA

**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 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. Third-year 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/feetal 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.

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 contracts required; consult Undergraduate Research Center. May be repeated. P/NP grading.

---

**OBSTETRICS AND GYNECOLOGY**

David Geffen School of Medicine
27-139 Center for Health Sciences
Box 951740
Los Angeles, CA 90095-1740

Obstetrics and Gynecology
310-206-6575

Deborah Krakow, MD, Chair

---

**OPHTHALMOLOGY**

David Geffen School of Medicine
2-142 Stein Eye Institute
Box 957000
Los Angeles, CA 90095-7000

Ophthalmology
310-825-5053

Bartly J. Mondino, MD, Chair
Anne L. Coleman, MD, PhD, Vice Chair
Anthony C. Arnold, MD, Vice Chair, Education
Alfredo A. Sadun, MD, PhD, Vice Chair, Doheny Eye Centers-UCLA

**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 from the department.

**Ophthalmology**

**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.
Faculty Roster

Professors
Shen Hu, PhD, MBA
Anahid Javett, MPH, PhD
Mo K. Kang, DDS, MS, PhD (Jack A. Weichman Professor of Endodontics)
Renate Lux, PhD
Diana V. Messadi, DDS, MMSc, DMSC
Ichiro Nishimura, DDS, DMD
Igor Spigelman, PhD
Sotiriou Treadis, DDS, PhD
Cun-Yu Wang, DDS, PhD (Dr. No-Hee Park Professor of Dentistry)
David T. Wong, DMD, DMSc (Felix and Mildred Yip Endowed Professor of Dentistry)

Associate Professors
Reuben Kim, DDS, PhD
Yong Kim, PhD, in Residence

Assistant Professors
Jimmy K. Hu, PhD
AliReza Moshaverinia, DDS, MS, PhD, FACP

Adjunct Professors
Carl A. Maida, MA, PhD
Ki-Hyuk Shin, MS, PhD

Adjunct Assistant Professor
Fang Wei, PhD

Professor of Clinical Dentistry
Fariba S. Younai, DDS

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

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 grading.

Graduate Courses

201A-201C. Advanced Oral Biology. (3–3) Lecture, three hours. S/U or letter grading:

201A. Ontogenesis. (3) Lecture, three hours. Evolutionary perspective on cellular development from simple molecules that were formed during first billion years of Earth to development of cells, tissues, and organs of invertebrates and vertebrates. Development of vertebrate feeding apparatus from comparative anatomic and physiologic point of view, followed by embryogenesis of orofacial and dental structures of mammals. S/U or letter grading.

201B. Pathobiology. (3) Lecture, three hours. Molecular basis for pathogenic processes in tissues of oral cavity. Topics include microbially mediated demineralization of hard tissues, soft tissue infections, carcinogenesis, colonization of mucosal substrates by opportunists, etc. S/U or letter grading.

201C. Salivary Diagnostics: Salivaomics, Saliva-Exosomes, Saliva Liquid Biopsy. (2) Lecture, one hour. Focus on basic, translational, and clinical advances of saliva and its -omics constituents in oral and systemic health, precision, and personalized medicine. Topics covered by active investigators in field of research. Lectures accompanied by two cutting-edge papers in field to prime student of exciting and emerging fields. Letter grading.


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 topics, 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 model. 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 dealing with immunological issues related to oral health, including HIV, opportunistic oral infections, periodontal pathology, oral immunopathology, caries immunology, endodontic immunology, etc. 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 therefrom. 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. Requisites: 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. Introductory course for graduate MS students. Guest seminars on topics of research in oral biology (pain pathways, immunology, 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 autoimmune, 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 components that complement one another to unravel complexity of biology in biomaterials in relation to dentistry. Integration of bioengineering, materials science, 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 production. 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, ceramics, and providing up-to-date information on dental materials currently used in clinical dentistry. Letter grading.

226. Craniofacial Growth and Development. (2) Lecture, two hours. Preparation: strong background in histology and embryology. Students acquire, from scientific literature discussed in lecture/seminar format, advanced knowledge of relevant aspects of human biology as they apply to classic and current concepts and principles governing growth and development of craniofacial region. Students required to present seminars on assigned topics that aid their understanding and analysis of course content that has application to 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.

228. Dental Pharmacology and Therapeutics. (2) Lecture, three hours. Survey of pharmacology, with particular emphasis on how drugs interact with dentistry, drugs used in dentistry, drug action and drug effects on autonomic and central nervous systems. S/U or letter grading.

229A. Culture, Ethnicity, and Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour; discussion, one hour. Examination of sociocultural, biological, and linguistic anthropology to understand factors that influence health and well-being, experience and distribution of illness, prevention and treatment of sickness, healing processes, social relations of therapy management, and cultural importance and utilization of pluralistic medical systems. Theory, perspectives, and methods from clinical medicine, public health, epidemiology, demography, and social 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 economy of infectious diseases, child health issues, women’s health and reproductive health, global trends in legal and illegal drug demography and health transition, structural adjustment, problems associated with globalization of pharmaceutical industry; antibiotic resistance, and globalization and health equity. Letter grading.

234. Seminar: Developmental Neuroendocrinology. (2) Seminar, 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 current literature on neuroimmune interaction from developmental perspective. S/U or letter grading.

M256. Interdisciplinary Response to Infectious Disease Emergencies: Dentistry Perspective. (4) Seminar, Community Health Sciences M256, Medicine M256, and Nursing 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 Medicine, Nursing, and Public Health during weeks two through five. 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. (2) 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.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations. (4 to 8) Tutorial, to be arranged. S/U 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

Frances L. Hornick, MD, PhD, 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 on 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

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 Orthopaedic Surgery. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

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
Graduate Courses


222. Cytogenetics: Basic Biology and Clinical Implications. (4) Lecture, three hours; discussion, one hour. Senior undergraduate students considered on case by case basis. In-depth study of concepts and paradigms in hematoepoietic disease. Mammalian hematopoietic and normal development, with focus on molecular regulation of cellular development and equal emphasis on conceptual and experimental aspects of knowledge. 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.

229. Molecular Mechanisms of Host/Pathogen Interaction. (4) Same as Microbiology M229. Lecture, two hours; discussion, two hours. Preparation: required. Molecular basis of microbial interactions with eukaryotic host cells. Highlights the molecular mechanisms of microbial interaction with cytoplasmic host cells in either the disease process or the host's protective response. Topics include infection and pathogenesis of common viruses, bacteria, fungi, and parasites, basis of toxin-mediated cellular damage, and immune suppression of microbial tissue damage. Letter grading.

M237. Cellular and Molecular Basis of Disease. (4) Same as Biological Chemistry M237. Lecture, two hours; laboratory, one hour. Preparation: one course each in molecular biology, cell biology, and physical chemistry. Discussion of key issues in disease mechanisms. Preparation: understanding of these mechanisms. Identification of important questions remains unsolved. 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 introductory knowledge of normal tissue, pathologic 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 basic immunology. Limited to graduate students. New developments in organ transplantation and molecular science of immune mechanisms, integration of basic science principles with clinical practice. Letter grading.

M255. Mapping and Mining Human Genome. (3) Same as Human Genetics M255S. Lecture, three hours. Basic molecular genetic techniques of gene mapping. Selected regions of human genomic map scrutinized in detail, particularly gene families and clusters of genes that have remained linked from mouse to human. Discussion of localization of disease genes. S/U or letter grading.


M257. Introduction to Toxicology. (4) Same as Pharmacology M257. Requisite: Pharmacology M241. Biochemical and systemic toxicology, basic mechanisms of toxicology, and interaction of toxic agents with specific organ systems.

M258. Pathologic Changes in Toxicology. (4) Same as Pharmacology M258S. Preparation: give students experience in learning normal histology of tissues which are major targets of toxin and the range of pathologic changes that occur in these tissues (liver, bone, lung, kidney, nervous system, and vascular system.

260. Immunopathology. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Preparation: Microbiology M254A. Advanced histology of normal and advanced undergraduate students regarding immune system, lymphocytic development, acute and chronic inflammation, hypersensitivity, and autoimmune disease. Letter grading.

262. Cytogenetics and Genomics. (3) Lecture, three hours. Comprehensive guide so students gain sufficient knowledge in conventional and state-of-the-art cytogenetic and genomic principles and techniques and their utility in clinical and research applications. Focus on relationship between various chromosomal and genomic abnormalities in both animals as identified by basic and advanced techniques such as fluorescence in situ hybridization (FISH), fluorescent in situ hybridization, and next-generation sequencing (NGS). All aspects of molecular cytogenetics and genomics 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. Preparation: one course each in both basic and clinical aspects of developmental hematology. Pediatric hematologic disorders provide important paradigm to study other developmental systems. Subjects include hematopoiesis, basic cell biology, and alternative models to study developmental hematology (zebrafish and Drosophila). Basic physiology of normal and abnormal red cells, platelets, and white cells. Leukemogenesis and novel therapies to treat leukemia, basic and clinical stem cell transplantation, state-of-the-art methods in developmental hematology (ge- nomics, proteomics, and gene therapy, design of clinical trials, and biomathematical modeling and statistics in developmental hematology. Letter grading.

M272. Stem Cell Biology and Regenerative Medicine. (4) Same as Molecular, Cell, and Developmental Biology M272. Lecture, two hours; discussion, two hours. Preparation: one course each in both basic and clinical aspects of developmental hematology. 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.

290. Clinical Aspects and Molecular Biology of Bone Marrow Failure Syndromes. (4) Lecture, two hours. Preparation: one course each in both basic and clinical aspects of developmental hematology. Designed for 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, and Molecular Pathogenesis of Telomeropathies, 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. Presentation of at least one journal article and leading of one group discussion required. Letter grading.

101. Introduction to Cytogenetics. (4) Preparation: one course each in both basic and clinical aspects of developmental hematology. Cytogenetics is branch of genetics concerned with study of structure and function of cells, especially chromosomes. Coverage of a broad range of topics on both clinical aspects and research in cytogenetics. Studies provide important paradigms to understand structure of chromosomes, mechanisms of chromosome segregation, diseases, and problems created for numerical and structural abnormalities of human chromosomes as well as study of new techniques in molecular cytogenetics, including fluorescence in situ hybridization (FISH), comparative genomic hybridization (CGH), and array CGH to diagnose constitutional syndromes and cancer. Journal club sessions include discussion of two journal articles per meeting (one clinical and one basic/translational). Presentation of at least one journal article and leading of one group discussion required. Letter grading.

188A. 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.


188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188A. 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.

188D. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188A. 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.

199. Directed Research in Pathology. (2 to 4) Tutorial, 10 hours; may be for 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.

PHILOSOPHY

College of Letters and Science
321 Dodd Hall
Box 951451
Los Angeles, CA 90095-1451

Philosophy
310-825-4641

Department e-mail

Faculty Roster

Professors
David L. Blank, PhD
Tyler Burge, PhD (Mr. and Mrs. C. N. Flint Professor of Philosophy)
John P. Carriero, PhD
Samuel J. Cumming, PhD
Mark D. Greenberg, JD, DPhil
Barbara Herman, MA, PhD (Gloria and Paul Griffin Professor of Philosophy)
David B. Kaplan, PhD (Pete Kameron Professor of Law and Social Justice)
Calvin L. Normore, PhD (Brian P. Copenhaver Professor)
Michael A. Rescorla, PhD
Sherrilyn Ife, PhD
Seana Shiffrin, JD, DPhil, (Christine L. Udvar-Hazy Professor Emeritus)
Donald A. Martin, BS
Herbert Morris, LLB, DPhil
Terence D. Parsons, PhD

Associate Professors
Gabriel J. Greenberg, PhD
Alexander J. Julius, PhD
Sean Walsh, PhD

Assistant Professors
Joshua D. Armstrong, PhD
Adam D. Crager, PhD
Daniela J. Dover, PhD
Katrina J. Elliott, PhD

Lecturers
Andrew Hsu, PhD
Mark C. Johnson, PhD
Steven R. Levy, PhD

Overview

Philosophy reflects on big questions, such as how should we live our lives, and what is the nature of the world we live in. It overlaps with other fields—the arts, law, politics, and the sciences—and is especially concerned with their fundamental concepts and assumptions, their foundations, and indeed the methodology of philosophy and its concerns are themselves subjects of philosophical inquiry.

PHARMACOLOGY

See Molecular and Medical Pharmacology

Overview

The Department of Pediatrics has faculty members at the following teaching hospitals: Cedars-Sinai, Harbor-UCLA, Long Beach, Olive View-UCLA, and UCLA Santa Monica medical centers; Miller Children’s & Women’s Long Beach and UCLA Mattel Children’s hospitals; and Venice Family Clinic. For second-year medical students, the required four-week clinical clerkship in pediatrics is offered at five sites: Cedars-Sinai, Harbor-UCLA, Kaiser Permanente Los Angeles, Olive View-UCLA, UCLA, and UCLA Santa Monica medical centers; and UCLA Mattel Children’s Hospital. For fourth-year medical students, in-depth subspecialty electives offered by the Pediatrics Department are listed in the School of Medicine Handbook of Clinical Courses, as are advanced clinical clerkships.

For more details on the Department of Pediatrics and courses offered, see the department website.

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. Szilagyi, MD, MPH, Executive Vice Chair and Vice Chair, Research

Overview

The Department of Pediatrics has faculty members at the following teaching hospitals: Cedars-Sinai, Harbor-UCLA, Long Beach, Olive View-UCLA, and UCLA Santa Monica medical centers; Miller Children’s & Women’s Long Beach and UCLA Mattel Children’s hospitals; and Venice Family Clinic. For second-year medical students, the required four-week clinical clerkship in pediatrics is offered at five sites: Cedars-Sinai, Harbor-UCLA, Kaiser Permanente Los Angeles, Olive View-UCLA, UCLA, and UCLA Santa Monica medical centers; and UCLA Mattel Children’s Hospital. For fourth-year medical students, in-depth subspecialty electives offered by the Pediatrics Department are listed in the School of Medicine Handbook of Clinical Courses, as are advanced clinical clerkships.

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 prerequisite: 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 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 prerequisite: 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 prerequisite: 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 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 prerequisite: course 188SC. 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.
Undergraduate Major

Philosophy BA

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 an exercise to UCLA: one philosophy that may be able to temporarily sway an opponent in the heat of conversation.

Students intending to do graduate work in philosophy should consult with both the graduate and undergraduate advisers.

Learning Outcomes

The Philosophy major has the following learning outcomes:

- Demonstrated solid foundation in logic, the history of philosophy (ancient, medieval, and modern), ethics and value theory, and metaphysics and epistemology
- Critical analysis and evaluation of arguments in historical texts and the contemporary philosophical literature
- Demonstrated ability to formulate and clearly present valid and sound arguments
- Development of oral and written skills that display skill at argument and the ability to engage honestly with difficult and controversial topics

Preparation for the Major

Required: Four lower-division courses, including Philosophy 7 or 21, 22, 31, and one other lower-division philosophy course.

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.

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.

Policies

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 taken at least three upper-division philosophy lecture or seminar courses at UCLA with an overall grade-point average of 3.7.

Requirements

To be awarded honors in philosophy at graduation, Philosophy majors must (1) have a 3.7 grade-point average in UCLA philosophy courses and a 3.7 GPA in upper-division UCLA philosophy courses; (2) 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; and (3) receive a grade of A- or better in each course applied toward satisfaction of the honors requirement.

Students may substitute Philosophy 191 for either course 198A or 198B or, alternatively, may complete up to two philosophy graduate seminars in lieu of courses 198A and/or 198B. For an undergraduate or graduate seminar to be applied toward the honors directed study requirement, the consent of both the seminar instructor and the faculty honors adviser is required in advance. Students may also substitute up to one 4-unit Philosophy 199 course in which they produce a substantial paper that represents an original piece of research or its equivalent.

Exceptional work done to satisfy the honors requirement may be submitted to the department chair for consideration for highest honors.

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 the 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. The focus of the department’s graduate training program culminates in the production of a long written document (the dissertation). Students in the graduate program also receive training and practice in teaching philosophy at various levels, and to audiences from diverse backgrounds.

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements,
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/Junior Doctor

Philosophy

Lower-Division Courses

1. Beginnings of Western Philosophy. (5) Lecture, three hours; discussion, one hour. Origins of Greek cosmology and philosophy, beginnings of systematic thought and scientific investigation concerning such questions as origin and nature of the material world, concept of laws of nature, possibility and extent of knowledge. Concentration on pre-Socratic philosophers, particularly Anaximander, Heraclitus, the Pythagorean school, Parmenides, Empedocles, and Greek atomists, during first two thirds of course and on Societies and some earlier works of Plato in last few weeks. P/NP or letter grading.

2. Introduction to Ethics. (5) Lecture, three hours; discussion, one hour. Introductory study of such topics as justice 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 specific texts dealing with major problems, related thematically 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.


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 works in political philosophy. Questions that may be discussed include: What is justice? Why should states, and not individuals, do all that they do? What is the best form of government? How much personal freedom 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 the mind and its relation to the body, including materialism, functionalism, 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. Study of selected problems concerning the character and reliability of scientific understanding, such as nature of scientific explanation and exploration, reality of theoretical entities, inductive confirmation of hypotheses, and occurrence of scientific revolutions. Discussion at non-technical level of episodes from history of science. P/NP or letter grading.

9. Principles of Critical Reasoning. (5) Lecture, four hours; discussion, one hour. Nature of arguments: how to analyze them and assess soundness of reasoning they represent. Common fallacies that often occur in arguments discussed in light of what counts as good deduction 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.

10. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of an assigned book (or books) with emphasis of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP 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 great 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 22W. Recommended or required for many upper-division courses in Group III. Systematic introduction to ethical theory, including discussion of egoism, utilitarianism, justice, responsibility, meaning of ethical terms, relativism, etc. P/NP or letter grading.

22W. Introduction to Ethical Theory. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H or English as a Second Language 36. Limited to freshmen/sophomores. Not open for credit to students with credit for course 22W. Introduction to major ethical theories in Western thought. Examination of works of Plato, Aristotle, Hume, Kant, and Mill. Topics include ideas of virtue, obligations, ethical foundations of morals. Four papers required. Satisfies Writing II requirement. Letter grading.

23. Meaning and Communication. (5) Lecture, three hours; discussion, one hour. Theory of meaning and its relationship to philosophy more generally; nature, origins, and acquisition of language. Additional topics may include nonlinguistic and nonhuman systems of communication, animal communication in law, literature, and art; use of theoretical terms in science. P/NP or letter grading.

M24. Language and Identity. (5) Same as Linguistics M73. Lecture, four hours; discussion, one hour (when scheduled). Examination of use of language to 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 subordination of women; marginalization of racial minorities; and, in some cases, incitement to violence through hate speech. Provides foundation for students of linguistic theory, philosophy, sociocultural anthropology, and communication studies. P/NP or letter grading.

31. 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 quantification: forms of reasoning and structure of language. 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 credit as an honors seminar. 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 an adjunct to 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.

97. Freshman Seminar. (4) Variable topics; consult Schedule of Classes or “Department Announcements” for topics to be offered in a specific term. May be repeated for credit with consent of instructor.

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. History of Greek Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Survey of origins of Greek metaphysics from pre-Socratics 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 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.

100D. History of Modern Philosophy, 1800 to 1850. (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.

102. Introduction to Philosophy. (5) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of some major texts in Greek philosophy of Hellenistic period, including works by Stoics, skeptics, philosophers of science, Neoplatonists, etc. P/NP or letter grading.

Group I: History of Philosophy

M101A. Plato—Earlier Dialogues. (4) Same as Classics M144A. Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in early-middle and middle dialogues of Plato. P/NP or letter grading.

M101B. Plato—Later Dialogues. (4) Same as Classics M144B. Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in late 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 those of pre-Socrates, Plato, Aristotle, and Stoics. Content based on established philosophical schools, including 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 include
115B. 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.

116. 19th-Century Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics from 19th-century thought. 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 from philosophy of mathematics concerning natural numbers and set theory. May be repeated for credit with consent of instructor. Concurrently scheduled with course C215. P/NP or letter grading.

118. History of Philosophy. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Study of selected philosophers from late antiquity to early modernity. Topics may include ancient philosophy, early modern philosophy, and philosophy of science. May be repeated for credit with consent of instructor. P/NP or letter grading.

119. Topics in History of Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected philosophers or their works. Topics may include early modern philosophy (e.g., ancient and medieval, early and modern). May be repeated for credit with consent of instructor. Concurrently scheduled with course C219. P/NP or letter grading.

Group II: Logic, Semantics, and Philosophy of Science

124. Philosophy of Science: Historical. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Historical introduction to philosophy of science. May be repeated for credit with consent of instructor. P/NP or letter grading.

125. Philosophy of Science: Contemporary. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of 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: one philosophy course. Study of philosophy of social sciences. May be repeated for credit with consent of instructor.

127A. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Preparation: one philosophy course. Study of theories of meaning and concepts in philosophy of language. 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. Preparation: one philosophy course. Study of theories of meaning and concepts in philosophy of language. May be repeated for credit with consent of instructor. Concurrently scheduled with course C228B. P/NP or letter grading.

127C. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Preparation: one philosophy course. Study of theories of meaning and concepts in philosophy of language. May be repeated for credit with consent of instructor. Concurrently scheduled with course C228C. P/NP or letter grading.

128. Topics in Philosophy of Mathematics. (4) (Formerly numbered 128.) Lecture, four hours. Requirement: courses 31, 132, and preferably one additional logic or mathematics course. Preparation: one philosophy course. Study of philosophy of mathematics concerning the nature of mathematical objects and the methods of mathematical reasoning. May be repeated for credit with consent of instructor. Concurrently scheduled with course C229. P/NP or letter grading.

129. Philosophy of Psychology. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Study of 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 computer simulation to accounts of thinking and meaning; relations between semantical theory and learning theory; psychological aspects of theory of syntax. May be repeated for credit with consent of instructor. 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 physics course. Selected problems concerning nature of space and time. Philosophical implications of space-time theories, such as those of Newton and Einstein. Topics may include relativity, conventionalism, absolutism versus relational views of space and time, philosophical impact of relativity theory.

131. Science and Metaphysics. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: 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 versus relative 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. Preparation: 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). Preparation: course 31, or background in logic, computer science, statistics, or mathematics. Topics may include interpretation of probability, Bayesian and non-Bayesian confirmation theory, paradoxes of confirmation, coherence, and conditioning. May be repeated for credit with consent of instructor. P/NP or letter grading.

134. Introduction to Set Theory. (4) (Same as Mathematics M114S.) Lecture, three hours: discussion, one hour. Preparation: course 135 or Mathematics 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. Preparation: course 31. Strongly recommended: course 132 (or Mathematics 33A or 33B). Metatheory of first- and second-order logic. Introduction to formal language, formal deductive systems, and models. Compactness and completeness theorems that concern complexity of notion of logical consequences. P/NP or letter grading.

136. Modal Logic. (4) Lecture, four hours. Preparation: courses 31 (enforced). Introduction to model theory of modal logic (family of systems that includes logics of necessity, modal logics); applications to modal logic, and related topics to modal logic such as provability logic, deontic logic, and non-normal modal logics. Topics include invariance results, definability theory, completeness theory, game-theoretic methods, and relationship between modal logics and (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. Study of selected topics in philosophy of biology, including nature of living organisms and the processes in which they develop. 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, emergence versus language, semiotics, 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: one philosophy course. 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. C151C. Selected Classics of Medieval Ethics.

152A. Topics in Moral Philosophy. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Study of selected topics in moral philosophy. Possible topics may include role of emotions in moral agency, reactive attitudes and other responses to moral and immoral action, moral motivation, moral relationships, moral character and identity, and moral change and moral transformation. 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). May be repeated for credit with consent of instructor. Topics may include role of emotions in moral agency, reactive attitudes and other responses to moral and immoral action, moral motivation, moral relationships, moral character and identity, and moral change and moral transformation. P/NP or letter grading.

153A. Ethics in 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 Ethics Theory: Metachetics. (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, free will, moral motivation, etc. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C253B. 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 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. May be concurrently scheduled with course C253B. 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 concerning moral responsibility, free will, and 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 C244B. P/NP or letter grading.

155A. Medical Ethics. (4) (Formerly numbered 155.) Lecture, three to four hours; discussion, one hour (when scheduled). May be repeated for credit with consent of instructor. P/NP or letter grading.

155B. Philosophy of 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, distributional 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 consent of instructor. May be concurrently scheduled with course C247. 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 discussed may include contested significance of gender; different models of gender identity and gender equality; gender discrimination, subordination, hierarchy, and repressive 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. Examination 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 injustice, foundations 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 mind and body, and our 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 naturalist, normative, and social constructivist types of answers, and error theories. Consideration of roles that fact, value, statistical normality, normal variation, harm, and harm might have in these contexts. Study of consequences of different accounts of these contexts for people with minority bodies, minds, and sexualities, and for decisions about care, 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). Requisite: course 21. Intensive investigation of one or two selected topics or works in theory of knowledge, such as a priori 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.

175. Topics in Philosophy of Religion. (4) Same as Religion M175.) Lecture, three hours; discussion, one hour. Preparation: 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. 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, James, Jaspers, Sartre, or Camus. Emphasis on explication and interpretation of the texts. May be repeated for credit with consent of instructor. P/NP or letter grading.

177B. Historical Studies in Existentialism. (4) Preparation: one philosophy course. Study of central philosophical texts of one of the following: Nietzsche, Heidegger, Jaspers, Buber, Sartre, or Camus. Emphasis on explication and interpretation of the texts. May be repeated for credit with consent of instructor. P/NP or letter grading.

178. Phenomenology. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Introduction to Husserlian 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. Approaches parallel traditions in Western tradition. May be repeated for credit with consent of department. P/NP or letter grading.

180. Philosophy of Action. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: two philosophy courses. Examination of influential philosophical conceptions employed in understanding human action. Topics may include rational choice, desire, intention,

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 alternative systems (e.g., phenomenализm, materialism, dualism). P/NP or letter grading.

183. Theory of Knowledge. (4) Lecture, three hours; discussion, one hour. Requisite: course 21. Probler- oriented study of contemporary classics of epistemo- logy on topics such as skepticism, justification, foundationalism, epistemic intuitions, tracking, closure, reliability, internalism, and externalism, among others. May be repeated for credit with consent of in- structor. P/NP or letter grading.

184. Topics in Metaphysics. (4) Lecture, three hours; discussion, one hour. Requisite: course 21. Intensive investigation of philosophical topics in metaphysics, such as personal 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/NP or letter grading.

185. Major Philosophers of 20th Century. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Exploration of main philosophical theories in philosophy of science and of major modern philosophers (e.g., Russell, Moore, Wittgenstein, Carnap, Quine). May be repeated for credit with consent of instructor. P/NP or letter grading.

M187. Topics in Feminist Philosophy: Metaphysics and Epistemology. (4) (Same as Gender Studies M110C.) 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 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. Critical study of concepts and principles that arise in discussion of women’s rights and liberation. Philosophical approach to feminist the- ories. May be repeated for credit with consent of instructor. Letter grading.

Special Studies

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College 110. 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.

188BB. 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 finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188BC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188BB. 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, 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 applied toward College Honors for eligible stu-
dents. May not be applied toward departmental honors. May be repeated for credit. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, one hour. Limited to students in College Honors Program. De- signed as adjunct to upper-division lecture course and indi-

190C, 190D. Individual Studies for USIE Facilitators. (2) Letter grading. with faculty mentor required. May not be repeated.

191. Variable Topics Research Seminars: Philoso-

191A, 191B. Individual Studies for USIE Facilitators. (2) Tutorial, four hours. Limited to junior/senior philosophy honors program students. Each course to be taken in conjunction with an 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 readings, and preparation of 6-10-page paper represent- ing original research. Courses 191A and 191B must be taken in conjunction with two different lecture courses, and both must be taken to satisfy depart- 

198A-198B. Honors Research in Philosophy. (2-4) Tutorial, two hours. Limited to junior/senior philosophy honors program students. Development of an independent research project under direct supervision of faculty mentor. May be repeated for credit. Individual contract required. Letter grading.

198C. Honors Research in Philosophy. (4) Tutorial, four hours. Limited to junior/senior philosophy honors program students. Development of an independent research project under direct supervision of faculty mentor. May be repeated for credit. Individual contract required. Letter grading.

198D. Directed Research in Philosophy. (2 to 4) Tuto-

198E. Directed Readings in Philosophy. (2) Seminar, four hours. Limited to seniors. Supervised individual research under the guidance of faculty mentor. May be repeated for credit. Individual contract required. Letter grading.

200A-200B-200C. Seminar for First-Year Graduate Students. (4–4–4) Seminar, three hours. Limited to and required of all first-year graduate philosophy stu-

201. Plato. (4) Seminar, four hours. Study of later dia-


203. Seminar: History of Ancient Philosophy. (4) Seminar, four hours. Selected problems and philoso-

206. Topics in Medieval Philosophy. (4) Lecture, four hours. Study of philosophy and theology of one or several medieval philosophers such as Augustine, An-

207. Seminar: History of Medieval and Renais-

208. Hobbes. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Hobbes’ political philosophy, especially Leviathan, with attention to its relevance to contemporary poli-

209. Descartes. (4) Lecture, four hours; discussion, one hour. Study of works of Descartes, with discus-

210. Spinoza. (4) Lecture, three hours. Selected topics in philosophy of Spinoza. May be concurrently scheduled with course C110, in which case there is a two-hour biweekly discussion meeting, plus additional readings and a longer term paper for graduate students. S/U or letter grading.

211. Leibniz. (4) Lecture, three hours. Selected topics in philosophy of Leibniz. May be concurrently scheduled with course C111, in which case there is a two-hour biweekly discussion meeting, plus additional readings and a longer term paper for graduate students. S/U or letter grading.

212. Locke and Berkeley. (4) Lecture, four hours. Preparation: one philosophy course. Study of philoso-

213. Kant. (4) Lecture, three hours; discussion, one hour. Preparation: 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 in-

216. 19th-Century Philosophy. (4) Seminar, four hours. Topics in 19th-century philosophy. May be re-

219. Topics in History of Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one or other activities and led by lecture course instructor. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C114, S/U or letter grading.

220. Seminar: Topics in History of Philosophy. (4) Seminar, three hours. Selected problems and philoso-

221. History of Set Theory. (4) Lecture, four hours. Development of concept of set and axiomatic set theory by examining selected writings of Frege, Russell, Zermelo, Fraenkel, and 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 constructivist, informal axiomatics, type theory and rank hierarchy, ramification and stratification, proper classes and sets as small classes, and particular Zer-

222. Logic, Semantics, and Philosophy of Science

221A. Topics in Set Theory. (4) Lecture, three hours. Requisite: Mathematics M114S. Sets, relations, func-

221B. History of Set Theory. (4) Lecture, four hours. Development of concept of set and axiomatic set theory by examining selected writings of Frege, Russell, Zermelo, Fraenkel, and 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 constructivist, informal axiomatics, type theory and rank hierarchy, ramification and stratification, proper classes and sets as small classes, and particular Zer-


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; and foundations of statistical mechanics. May be repeated for credit with consent of instructor. S/U or letter grading.

C225. Probability and Inductive Logic. (4) Formerly numbered 225S. Lecture, three hours; discussion, one hour. Requisite: course 21, 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 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.

C227. 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 processes and individual psychology, logic of explanation in social sciences, determination and spontaneity in history, interpretation of cultures radically different from one's own. Students with primary interest and advanced preparation in social sciences encouraged to enroll. May be repeated for credit with consent of instructor. S/U or letter grading.

C228A. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Syntax, semantics, pragmatics. Semantical 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.

C228B. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Requisite: course 31. Course C228A is not requisite to C228B. Selected topics in philosophy of language 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.

C228C. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. 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.

C229. 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 modal sentences, epistemic logic, intuitionistic logic, 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. Selected topics 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. S/U or letter grading.

235. Philosophy of Mathematics. (4) Seminar, three hours. Selected topics 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; discussion, one hour. Selected topics in course C156 or C157A or C157B or any two philosophy courses. Examination of one or more topics 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.

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 better 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. Intensive study 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 some leading current problems in moral philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.

249. Seminar: Ethics and Value Theory. (4) Seminar, two hours. Preparation: two upper-division philosophy courses. Examination of theories, concepts, and problems concerning human actions. Topics may include analysis of intentional actions, deontological and teleological ethics, possibility of moral responsibility, and nature of moral obligation. May be repeated for credit with consent of instructor. S/U or letter grading.

250. Seminar: Aesthetic Theory. (4) Seminar, four hours. Selected topics. May be repeated for credit with consent of instructor. S/U or letter grading.

M255. Topics in Legal Philosophy. (4) (Same as Law M217.) Lecture, three hours. Examination of topics such as the concept of law, ethical problems of punishme, legal reasoning, and obligation to obey the law. May be repeated for credit with consent of instructor. S/U or letter grading.

M257A-257B. Philosophy Legal Theory. (1 to 8) (Same as Law M524.) Seminar, three hours. Selected topics in philosophy of law. May be repeated for credit with consent of instructor. S/U or letter grading.

C258. 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. Reading from legal and philosophical literature. S/U or letter grading.

M259. Philosophical Research in Ethics and Value Theory. (2 to 4) Seminar, two hours. Preparation: completion of proposition requirement. Presentation of research in ethics and value theory. Participants make presentations, analyze and discuss presentations of others, and read 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 grading.

Group IV: Metaphysics and Epistemology

C261. 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, deontology and teleology, nature of explanations of intentional actions. May be repeated for credit with consent of instructor.
Seminar, two hours. Ongoing discussion of current is
Seminar, three hours. Selected topics in 20th-century con-
Seminar, two hours. May be repeated for credit with consent of instructor. S/U or letter grading.
Special Studies
Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.
Seminar, Theory of Knowledge. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.
Seminar, Philosophy of Perception. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.
Seminar, 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 concept of human nature. S/U or letter grading.
Seminar, Philosophy of Language. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.
Seminar, Philosophy of Religion. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.
Seminar, Workshop: Philosophy of Language. (2 or 4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.
Seminar, Workshop: Philosophy of Mind. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.
Seminar, Metaphysics. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.
Seminar, Workshop: Philosophy of Mathematics. (2 or 4) Seminar, to be arranged. May be repeated for credit with consent of instructor. S/U or letter grading.
Seminar, Theory of Knowledge. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.
Seminar, Workshop: Philosophy of Language. (4) Seminar, to be arranged. May be repeated for credit with consent of instructor. S/U or letter grading.

290. 20th-Century Continental Philosophy. (4) Seminar, three hours. Selected topics in 20th-century continental European philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.
291. Seminar: Philosophy of Mind. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.
292. Seminar: Metaphysics. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.
293. Seminar: Theory of Knowledge. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.
294. Teaching College Philosophy. (2 to 4) Seminar, to be arranged. May be repeated for credit with consent of instructor. S/U or letter grading.
295. Teaching College Philosophy. (2 to 4) Seminar, to be arranged. May be repeated for credit with consent of instructor. S/U or letter grading.
501. Cooperative Program. (2 to 8) Preparation: consent of instructor. S/U or letter grading. May be repeated for credit with consent of instructor. S/U or letter 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 8) Preparation: advancement to PhD candidacy. May be repeated for credit. S/U or letter 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 or letter grading.

PHYSICS AND ASTRONOMY

College of Letters and Science
2-707 Physics and Astronomy Building
Box 951547
Los Angeles, CA 90095-1547

Physicists and Astronomy
310-825-3440
David Saltzberg, PhD, Chair
Wesley C. Campbell, PhD, Vice Chair, Resources
Jay Hauser, PhD, Vice Chair, Academic Affairs
Alice E. Shapley, PhD, Vice Chair, Astronomy

Faculty Roster

Professors
Katsushi Arisaka, PhD
Zvi Bern, PhD
Dolores Bozovic, PhD
Stuart E. Brown, PhD
Robijn F. Bruinsma, PhD
Troy A. Carter, PhD
Sudip Chakravarty, PhD
Eric D’Hoker, PhD
Steven R. Furlanetto, PhD
Graciela B. Gelmini, PhD
Andrea M. Ghez, PhD (Nobel laureate; Lauren B. Leichtman and Arthur E. Levine Endowed Professor of Astrophysics)
Michael Gutperle, PhD
Bradley M. Hansen, PhD
Jay Hauser, PhD
Károly Holczer, PhD
Huan Z. Huang, PhD
Eric R. Hudson, PhD
David C. Jewitt, PhD
Hong-Wen Jiang, PhD
Per J. Kraus, PhD
Alexander Kusenko, PhD
James E. Larkin, PhD
Alexander J. Levine, PhD
Matthew A. Malkan, PhD
Jean-Luc Margot, PhD
Thomas G. Mason, PhD
Mayank R. Mehta, PhD
Jianwei Miao, PhD
Warren B. Mori, PhD
Pietro Musumeci, PhD
William I. Newman, PhD
Christoph Niemann, PhD
Rene A. Ong, PhD
Seth J. Puttermann, PhD
Brian C. Regan, PhD
James Rosenzweig, PhD
David Saltzberg, PhD
Alice E. Shapley, PhD
E.T. Tombouli, PhD
Tommaso L. Treu, PhD
Yaroslav Tserkovnyak, PhD
Jean L. Turner, PhD
Vladimir V. Vassiliev, PhD
Kang L. Wang, PhD (Raytheon Company Presidential Professor Emeritus of Physics)
Gary A. Williams, PhD
Giovanni Zocchi, PhD

Professors Emeriti
Ernest S. Abares, PhD
Eric E. Becklin, PhD
Charles D. Buchanan, PhD
W. Gilbert Clark, PhD
John M. Cornwell, PhD
Ferdinand V. Coroniti, PhD
Robert D. Cousins, PhD
Sergio Ferrara, PhD
Robert J. Finkelstein, PhD
Christian Fronsard, PhD
Walter N. Gekelman, PhD
George Grüner, PhD
Roy P. Haddock, PhD
Ian S. McLean, PhD
George J. Morales, PhD
Mark R. Morris, PhD
C. Kumar N. Patel, PhD
Claudio Pellegrini, PhD
Reiner L. Stenzel, PhD
Roger K. Ulrich, PhD
Alfred Y. Wong, PhD
Chun Wa Wong, PhD
Edward L. Wright, PhD (David S.axon Presidential Professor Emeritus of Physics)
Benjamin M. Zucker, PhD

Associate Professors
Wesley C. Campbell, PhD
Michael P. Fitzgerald, PhD
Smarad Nazo, PhD (Howard and Astrid Preston Term Professor of Astrophysics)
Ni Ni, PhD
Rahul Roy, PhD
Hilke E. Schlichting, PhD

Assistant Professors
E. Paulo Alves, PhD
Michail Bachh, PhD
Tuan H. Do, PhD

Physics and Astronomy
310-825-3440
David Saltzberg, PhD, Chair
Wesley C. Campbell, PhD, Vice Chair, Resources
Jay Hauser, PhD, Vice Chair, Academic Affairs
Alice E. Shapley, PhD, Vice Chair, Astronomy

Faculty Roster

Professors
Katsushi Arisaka, PhD
Zvi Bern, PhD
Dolores Bozovic, PhD
Stuart E. Brown, PhD
Robijn F. Bruinsma, PhD
Troy A. Carter, PhD
Sudip Chakravarty, PhD
Eric D’Hoker, PhD
Steven R. Furlanetto, PhD
Graciela B. Gelmini, PhD
Andrea M. Ghez, PhD (Nobel laureate; Lauren B. Leichtman and Arthur E. Levine Endowed Professor of Astrophysics)
Michael Gutperle, PhD
Bradley M. Hansen, PhD
Jay Hauser, PhD
Károly Holczer, PhD
Huan Z. Huang, PhD
Eric R. Hudson, PhD
David C. Jewitt, PhD
Hong-Wen Jiang, PhD
Per J. Kraus, PhD
Alexander Kusenko, PhD
James E. Larkin, PhD
Alexander J. Levine, PhD
Matthew A. Malkan, PhD
Jean-Luc Margot, PhD
Thomas G. Mason, PhD
Mayank R. Mehta, PhD
Jianwei Miao, PhD
Warren B. Mori, PhD
Pietro Musumeci, PhD
William I. Newman, PhD
Christoph Niemann, PhD
Rene A. Ong, PhD
Seth J. Puttermann, PhD
Brian C. Regan, PhD
James Rosenzweig, PhD
David Saltzberg, PhD
Alice E. Shapley, PhD
E.T. Tombouli, PhD
Tommaso L. Treu, PhD
Yaroslav Tserkovnyak, PhD
Jean L. Turner, PhD
Vladimir V. Vassiliev, PhD
Kang L. Wang, PhD (Raytheon Company Presidential Professor Emeritus of Physics)
Gary A. Williams, PhD
Giovanni Zocchi, PhD

Professors Emeriti
Ernest S. Abares, PhD
Eric E. Becklin, PhD
Charles D. Buchanan, PhD
W. Gilbert Clark, PhD
John M. Cornwell, PhD
Ferdinand V. Coroniti, PhD
Robert D. Cousins, PhD
Sergio Ferrara, PhD
Robert J. Finkelstein, PhD
Christian Fronsard, PhD
Walter N. Gekelman, PhD
George Grüner, PhD
Roy P. Haddock, PhD
Ian S. McLean, PhD
George J. Morales, PhD
Mark R. Morris, PhD
C. Kumar N. Patel, PhD
Claudio Pellegrini, PhD
Reiner L. Stenzel, PhD
Roger K. Ulrich, PhD
Alfred Y. Wong, PhD
Chun Wa Wong, PhD
Edward L. Wright, PhD (David S.axon Presidential Professor Emeritus of Physics)
Benjamin M. Zucker, PhD

Associate Professors
Wesley C. Campbell, PhD
Michael P. Fitzgerald, PhD
Smarad Nazo, PhD (Howard and Astrid Preston Term Professor of Astrophysics)
Ni Ni, PhD
Rahul Roy, PhD
Hilke E. Schlichting, PhD

Assistant Professors
E. Paulo Alves, PhD
Michail Bachh, PhD
Tuan H. Do, PhD
Astronomy 3 is the fundamental one-term course for science majors, including those who are not science oriented. 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 and 82 are general survey courses recommended for science majors in their second year. They systematize introductory 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 31A and 32A series).

Concepts in physics and related sciences are invited to select any of these courses: Astronomy 115, 117, 127, 140, 180.

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 one or both parts of the College Board Advanced Placement Physics C Test may also serve as a placement examination, but placement is not automatic. Students should discuss such possibilities with their departmental advisor.

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 teaching career, or in a scientific career in government or industry

Preparation for the Major

Required: Astronomy 81, 82; Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 18L; Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B; Program in Computing 10A or demonstrated ability to program. Systematic study of astrophysics should begin with Astronomy 81 and 82, taken in the second year.

Recommended: Chemistry and Biochemistry 20A.

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.

The Major


Recommended: Physics 108, M122, 124, 132, 140A, 140B.

Policies

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 astronomy, mathematics, and physics courses are eligible for the honors program in astrophysics. In addition to completing all courses required for the major, students must complete two terms of Astronomy 199. To receive honors and highest honors at graduation, the grade-point average must remain at 3.5 and 3.75 or better, respectively, and work in course 199 must reflect original research and be accepted by the departmental honors committee.

Biophysics BS

The goal of the Biophysics major is to provide students with an undergraduate background that will enable 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 these 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

Preparation for the Major
Required: Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4A, 4B, 17; Chemistry and Biochemistry 20A, 20B; Life Sciences 7A; Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B. Recommended: Physics 18L.

Transfer Students
Transfer applicants to the Biophysics 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.

The Major
Required: Physics 105A, 110A, 110B, 112, 115A, 115B, 131, M180G, C187A, C187B; either course 144 or C186; three additional upper-division elective courses selected from one group or among the three groups.


Group B (Biological Physics): Physics 117, 144, Mechanical and Aerospace Engineering C286.

Group C (Molecular and Cellular Biophysics): Chemistry 153A, 153L, Molecular, Cell, and Developmental Biology 100 or 165A.

Policies
Students will be advised when a course has additional lower-division requirements.

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.

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

Preparation for the Major
Required: Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4A, 4B, 17, 18L; Chemistry and Biochemistry 20A; Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B. Recommended: Physics 18L.

Transfer Students
Transfer applicants to the Physics BS 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.

The Major
Required: Physics 105A, 105B, 110A, 110B, 112, 115A, 115B, 131C, 131D, 140A, 140B, 144, 150, 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. 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, 117, M122, 123, 124, 126, 127, 132, 140A, 140B, 144, 150, 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. Approved plans of study are available from the undergraduate advisers.

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
The department offers three honors programs leading to graduation with honors or highest honors in physics. Students are eligible after completing the preparation for the major and four upper-division physics courses with an overall grade-point average of 3.0 and a 3.5 GPA in upper-division physics and mathematics courses. Contact the Undergraduate Office for a complete description of the programs and an application.

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

Preparation for the Major

**Required:** Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 18L; Chemistry and Biochemistry 20A; Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B.

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.

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.

**Astronomy and Astrophysics MS, PhD**

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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**

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Physics MAT**

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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**

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Astronomy**

**Lower-Division Courses**

3. **Nature of Universe.** (5) Lecture, three hours; discussion, 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 standard. Course for general UCLA students, normally not in a teaching career, or in a scientific career in government or industry.

4. **Black Holes and Cosmic Catastrophes.** (4) Lecture, three hours; discussion, one hour. Essentially nonmathematical course for general UCLA students that discusses black holes and related cosmic catastrophes. White dwarfs, neutron stars, and black holes are compact objects formed in violent events that terminate lives of stars and are associated with some of most energetic and explosive phenomena in astronomy: planetary nebulae and novae (white dwarfs), supernovae, pulsars, galactic X-ray sources, and gamma ray bursts. Supermassive black holes form in nuclei of young galaxies, and gravitational accretion of matter onto black holes powers most energetic objects in universe—quasars. Universe was born in ultimate cosmic explosion—Big Bang—that may have derived its energy from quantum mechanical vacuum. P/NP or letter grading.

5. **Life in Universe.** (4) Lecture, four hours; discussion, one hour. Preparation: prior introduction to astronomy. Life on Earth and prospects for life elsewhere in context of evolution of universe from simple to complex. Course material primarily from astronomy and biology but includes some chemistry, geology, and physics. Selected topics treated in some detail, but with little or no formal mathematics. P/NP or letter grading.

6. **Cosmology: Our Changing Concepts of Universe.** (4) Lecture, three hours; discussion, one hour. Exposition of ideas about structure and evolution of universe and its contents. Special and general relativity; black holes, neutron stars, and other endpoints of stellar evolution. Expanding universe, cosmic microwave background radiation, dark matter, Big Bang and inflation. P/NP or letter grading.

81. **Astrophysics I: Stars and Nebulae.** (4) 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 sophomores and upper-division students. Survey of our knowledge about stars: their distances, masses, luminosities, temperatures, and interrelations between these parameters. Methods and importance for astrophysics. Variable stars. Planetary and gas-giant nebulae. P/NP or letter grading.

82. **Astrophysics II: Stellar Evolution, Galaxies, and Cosmology.** (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, and Physics 1A or 1AH. Open to qualified sophomores and upper-division students. Basic principles of stellar structure and evolution. Red giants, white dwarfs, novae, supernovae, neutron stars, and black holes. Pulsars and galactic X-ray sources. Milky Way galaxy and interstellar medium. Extragalactic astronomy, galaxy clustering, active galactic nuclei, and quasars. Introduction to cosmology. Hubble law, thermal history of Big Bang, and earliest moments of universe. P/NP or letter grading.

88A-88Z. **Lower-Division Seminars.** (2 each) Seminar, two hours. Limited to freshmen. Variable topics; consult Schedule of Classes for topics to be offered in specific term. P/NP or letter grading.

88A. **Cosmic Evolution.** (2) Seminar, two hours. Limited to freshmen. Survey of astronomical and physical processes of evolution; discussion of how, over billions of years, basic mechanisms of cosmic evolution have transformed universe from fiery origin at Big Bang into abode for intelligent life. P/NP or letter grading.

88H. **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. 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 maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
Upper-Division Courses

115. Statistical Mechanics and Its Application to Astrophysics. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 32B, 33A, 33B, Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Particle distributions, partition functions, black body radiation, Saha equation, degeneracy. Applications to stellar atmospheres, stellar interiors, and interstellar medium. P/NP or letter grading.


180. Astrophysics Laboratory. (4) Lecture, two hours; laboratory, four hours. Designed for juniors/seniors in Astrophysics, Physics, or related field. Lectures cover topics in astrophysics, with an emphasis on two-dimentional random processes, and numerical methods. Laboratory experiments involve radio astronomy, interferometry, narrowband solar imaging, and visual astrometry on use of computer for automatic collection of data and for processing two-dimensional astronomical images. 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 3 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Astrophysics. (2) Seminar, two hours; discussion, one hour. During spring quarter 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 supervisor per faculty member. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Astrophysics. (1) Research group meeting, one hour. Designed for under-graduate students who are part of research group/labatory. Discussion of research of faculty members or students with regard to understanding methodology. Field is fixed excluding this course. Individual contract required; consult Undergraduate Research Center. 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. Assignment and 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 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/senior Astrophysics and Physics majors. Supervised individual research or investigation under guidance of faculty mentor. Course work required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


277A-277B. Astronomy Research Project. (6–6) Tutorial, to be arranged. Designed for second-year graduate astronomy students. Two-term research project planned in conjunction with either an assigned reading or a suitable research topic in astronomy or astrophysics, culminating in written report at end of second term. S/ U (277A) and letter (277B) grading.

279. 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.

279R. Seminar: Current Astronomical Research. (2, 4) Seminar, one hour. Astronomy and astrophysics colloquium with lectures on current research by local and visiting researchers. S/U 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 a variety of topics of interest to professional and graduate level students. Students work together and individually to solve problems on blackboard using basic physics and order of magnitude estimations. Letter grading.


296. Research Topics in Astronomy. (2) Discussion, two hours. Advanced study and analysis of current topics in astronomy. Discussion of research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

297. Practice of Scientific Presentations in Astronomy. (Formerly numbered 297.) Lecture, one hour. Training and practice in giving scientific presentations in context of astronomy and astrophysics. Includes brief review of basic principles of effective scientific communication. Students give talks on their re-
Physics

Lower-Division Courses


1BH. Physics for Scientists and Engineers: Oscillations, Waves, Electric and Magnetic Fields (Honors). (5) Lecture/demonstration, four hours; discussion, one hour. Enforced requisites: course 1A, 1AH, 31B, 32A. Enforced corequisite: Mechanics 32B. Computed-measured corequisite: Mathematics 33A. 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.


1CH. Physics for Scientists and Engineers: Electrodynamics, Optics, and Special Relativity (Honors). (5) Lecture/demonstration, four hours; discussion, one hour. Enforced requisites: courses 1AH or 1A, 1BH or 1B, Mathematics 32A, 32B. Enforced corequisite: Mathematics 33A, magnetism. Computed-measured corequisite: Mathematics 33B. Enriched preparation for upper-division physics courses. Same material as course 1C but in greater depth; recommended for Physics majors and other students desiring such coverage. P/NP or letter grading.

4AL. Physics Laboratory for Scientists and Engineers: Mechanics. (2) Laboratory, four hours. Enforced requisites: course 1A or 1AH, 1B or 1BH. Enforced corequisite: course 1B or 1BH. Computed-measured corequisite: Measurement of uniform and accelerated motion, including oscillations. Analysis of data and comparison of results to predictions, including least-squares fitting. Conception, execution, and presentation of creative projects involving motion. Letter grading.

4BL. Physics Laboratory for Scientists and Engineers: Electricity and Magnetism. (2) Laboratory, four hours. Enforced requisites: courses 1A or 1AH, 1B or 1BH. Enforced corequisite: course 1C or 1CH. Sound waves and electric circuits, taken by digital oscilloscopes and analyzed by Fourier transformation. Geometrical and physical optics. Conception, execution, and presentation of creative projects involving sound waves or electric circuits. Letter grading.

5A. Physics for Life Sciences Majors: Mechanics and Energy. (5) Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisites: Life Sciences 30A, 30B, or Mathematics 3A, 3B, 3C (SC may be taken concurrently). Statics and dynamics of forces, motion, energy, including thermal energy, with applications to biological and biochemical systems. P/NP or letter grading.

5B. Physics for Life Sciences Majors: Thermodynamics, Fluids, Waves, Light, and Optics. (5) Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisites: course 5A. Thermal properties of matter, free energy, fluids, ideal gas, diffusion, oscillations, waves, sounds, light, and optics, with applications to biological and biochemical systems. P/NP or letter grading.

5C. Physics for Life Sciences Majors: Electricity, Magnetism, and Modern Physics. (5) Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisites: course 5A. Electricity, circuits, magnetism, quantum, atomic and nuclear physics, radioactive decay, with applications to biological and biochemical systems. P/NP or letter grading.

10. Physics. (4) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 1A, 1AH, 1B, or 1BH. Special mathematical preparation beyond that necessary for admission to UCLA in freshman standing not required. Topics include planetary motion, Newton laws, gravitation, electricity and magnetism, wave motion, light, sound, and heat, relativity, quantum mechanics, atoms, and subatomic particles, development of physical ideas placed in cultural and historical perspective. P/NP or letter grading.

11. Revolutions in Physics. (4) Lecture, three hours; discussion, one hour. Survey of modern physics intended for general UCLA students. Overview of classical physics from late 19th century and its growing set of dilemmas. Revolutions of relativity and quantum mechanics that have led to much deeper understanding of structure and evolution of our Universe. Specific topics include special and general relativity, cosmology (Big Bang), quantization of light, nucleus and radioactivity, origin of elements, and quantum mechanics. P/NP or letter grading.

12. Physics of Sustainable Energy. (4) Lecture, three hours; discussion, one hour. Special mathematical preparation beyond that necessary for admission to UCLA in freshman standing not required. Discussion of physics underpinnings of energy sources and consumption, with emphasis on renewables. Global view of energy balance in our lives from point of view of physical processes. Ways in which our energy use is used in everyday life (transportation, heating, cooling), and ways in which it is produced, covering all common and speculative sources of energy from fossil fuels to nuclear, solar, wind, etc. Fundamental physical limitations of each technology to master concepts such as efficiency of thermodynamic cycles and of chemical and nuclear reactions. Quantitative estimation of amount of energy students use in their daily lives and what physical processes could produce it. P/ NP or letter grading.


18L. Modern Physics Laboratory. (4) Lecture, one hour; laboratory, six hours. Requisites: courses 1A, 1B, and 1C or 1AH, 1B, and 1CH. 4AL, 4BL. 17. Experiments on radioactivity, scattering, Planck constant, superconductivity, superfluidity. 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 fields through new and every at UCLA. P/NP or letter grading.

Physics and Astronomy / 717
110A. Electricity and Magnetism. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 131, Mathe
matics 32B, 33A, 33B. Electromagnetics and other topics. Letter grading.

118. Optics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 110B. Interaction of light with matter; dispersion theory, oscillator strength, line
profiles. Letter grading.

110B. Electricity and Magnetism. (4) Lecture, four hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 110A, Mathe
matics 32B, 33A, 33B. Faraday law and Maxwell equations for electromagnetic radiation. Multiple radiation and from an accelerated
charge. Special theory of relativity. P/NP or letter grading.

112. Thermodynamics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 110A, Mathe
matics 32B, 33A, 33B. Corequisite: course 115B. Fundamentals of thermody
namics, including first, second, and third laws. Statistical mecha
nical point of view and its relation to ther
modynamics. Some simple applications. P/NP or letter grading.

114. Mechanics of Wave Motion and Sound. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 105A, 105B, Mathematics 32B, 33A, 33B. Vibrating systems and wave propagation in gases, liquids, and solids, including elements of hydrodynamics and elas
tics. Applications in ultrasonics, low-temperature physics, solid-state physics, architectural acoustics. P/NP or letter grading.

115A. Quantum Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 17, 105A, 131. Corequisite: course 105B. Classical background. Basic ideas of quantum nature of light, wave-particle duality, superposition, wavefunction principle. Both basic and applied physical operators. Schrödinger equation. One-di

115B. Quantum Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 115A, 131. Formal theory; commutator algebra, Her


117. Electronics for Physics Measurement. (4) Lecture, two hours; laboratory, four hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Electronics 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 circuit point of view, examining typical circuits for scientific instrumentation and study of methods of computer data acquisition and signal processing. P/NP or letter grading.

118. Optics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 131, Mathe
matics 32B, 33A, 33B. Electromagnetics and other topics. Letter grading.

110B. Electricity and Magnetism. (4) Lecture, four hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 110A, Mathe
matics 32B, 33A, 33B. Faraday law and Maxwell equations for electromagnetic radiation. Multiple radiation and from an accelerated
charge. Special theory of relativity. P/NP or letter grading.

112. Thermodynamics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 110A, Mathe
matics 32B, 33A, 33B. Corequisite: course 115B. Fundamentals of thermody
namics, including first, second, and third laws. Statistical mecha
nical point of view and its relation to ther
modynamics. Some simple applications. P/NP or letter grading.

114. Mechanics of Wave Motion and Sound. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 105A, 105B, Mathematics 32B, 33A, 33B. Vibrating systems and wave propagation in gases, liquids, and solids, including elements of hydrodynamics and elas
tics. Applications in ultrasonics, low-temperature physics, solid-state physics, architectural acoustics. P/NP or letter grading.

115A. Quantum Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 17, 105A, 131. Corequisite: course 105B. Classical background. Basic ideas of quantum nature of light, wave-particle duality, superposition, wavefunction principle. Both basic and applied physical operators. Schrödinger equation. One-di

115B. Quantum Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 115A, 131. Formal theory; commutator algebra, Her


117. Electronics for Physics Measurement. (4) Lecture, two hours; laboratory, four hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Electronics 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 circuit point of view, examining typical circuits for scientific instrumentation and study of methods of computer data acquisition and signal processing. P/NP or letter grading.
186. Neurophysics: 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 neurobiological concepts of neurons, synapses, and plasticity. Introduction to commonly used experimental and theoretical techniques of measuring, quantifying, and modeling neural activity, and their relative strengths and weaknesses. Use of them to understand link between neural circuits, their emergent dynamics, and behavior in example model systems. Discussion of mechanisms of interaction between these themes in cognition, learning, and sleep. Computer laboratory component where students learn to write simple codes to quantify neural activity patterns. Concurrently scheduled with course C187A. P/NP or letter grading.


188. Special Courses in Physics. (4) Lecture, three hours; discussion, one hour. Limited to junior/senior Astrophysics and Physics majors. Departmentally sponsored temporary courses such as pilot courses or those taught by visiting faculty members. 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 seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May be repeated for credit. 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 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 research seminar. 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. P/NP or letter grading.

190. Research Colloquia in Physics. (2 to 4) Seminar, two hours. Designed to bring together students under taking supervised research in physics. 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. Reading and development of culminating project. Content varies from year to year. 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 juniors/seniors. Training and supervised practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative programs with guidance and supervision from one or more faculty members. 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, five to six hours. Requisites: one course from 1A, 1B, 1C, 5A, 5B, 5C, 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 refracted 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 receive frequent feedback on their progress. May be repeated four times for credit. Letter grading.


193. Journal Club Seminars: Physics. (2) Seminar, one hour. Limited to undergraduate students. Seminar for junior/senior USIE students. Seminar topics offered by department on weekly basis. Supplemental reading from literature on speaker’s topic, as well as active participation and discussion to understand what kind of questions modern-day physicists actually ask and how they go about answering them. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Physics and Astronomy. (1) Research group meeting, one hour. Designed for undergraduate students who are part of research group/lab. Discussion of research of faculty members or students with regard to understanding methodology in field and laboratory equipment. May be repeated for credit. P/NP grading.

196. Research Apprenticeship in Physics. (2 to 4) Seminar, one hour. Limited to junior/senior USIE students. Students are paired with faculty members for laboratory research experience. May be repeated for credit. P/NP grading.

197. Research Apprenticeship in Physics. (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 member. May be repeated for credit. Individual contract required. P/NP grading.

198. Individual Studies in Physics. (2 to 4) Tutorial, to be arranged. Limited to 10 students. Intensive study, with scheduled meetings to be arranged between faculty member and student. Assisted reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Honors Research in Physics. (2 to 4) Tutorial, 12 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. Letter grading.

200. Directed Research or Senior Project in Physics. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. May be taken concurrently. Individual research 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

201A. Modern Physics Research Areas. (2) Review of modern physics research areas, with emphasis on those actively pursued at UCLA. S/U grading.


216. Research Group Seminar: Physics. (1) Seminar, one hour. May be repeated for credit. S/U or letter grading.


221A. Quantum Mechanics. (4) Lecture, three hours; discussion, one hour. Frobenius and Weyl equations; quantum mechanical operators and states vectors, equations of motion. Letter grading.
Directed toward problems of current research interest in plasma physics group, both experimental and theoretical. May be repeated for credit. S/U grading.

291. Research Tutorial: Elementary Particle Theory. (2 or 4) Requisite: courses 220A, 230A, 230B. Required of each graduate student doing research in this field, ordinarily during second or third year. Seminar and discussion by staff, postdoctoral fellows, and graduate students. 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 or 4) 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 on topics of current interest in accelerator physics. 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 students on their 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.

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.

599. 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.

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 specialities: 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, governmental, 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.


204. Introductory Radiation Biology. (4) Lecture, four hours. Effect of ionizing radiation on chemical and biological systems. 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 subtraction angiography (DSA) methods of producing three-dimensional images. S/U or letter grading.


208A. Medical Physics Laboratory: Medical Imaging. (4) Discussion, two hours; laboratory, four hours. Requisite: course 205. 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. Computer 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, image 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, transducer models, STIC, 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 Basics of Positron-Emission Tomography (PET). (4) Lecture, three hours; discussion, one hour. Introduction to biochemical processes and applications of PET imaging, scanning non-invasively by positron-emission tomography (PET). Validation of kinetic models to derive quantitative information from PET. Introduction to clinical and experimental aspects related to mammography systems. 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 metabolism studies, to study normal and diabetic brains non-invasively by positron-emission tomography (PET). Validation of kinetic models to derive quantitative information from PET. Introduction to clinical and experimental aspects related to mammography systems. S/U or letter grading.


217. Statistics and Data Analysis in Biomedical Physics. (2) Lecture, two hours; laboratory, one hour. Requisites: Mathematics 31A, 31B, 32A, 32B, 33A, 33B. Introduction to computer-based statistical concepts, data analysis, and experimental design within biomedical physics research. Standard statistical packages and various statistical computing algorithms on relevant data sets within radiological sciences. Letter grading.

218. Radiologic Functional Anatomy. (4) Lecture, three hours; discussion, one hour. Introduction to human anatomy, cell biology, and physiology as visualized through mammography, molecular imaging, radiography, CT, MRI, ultrasonography, PET, and SPECT. Letter grading.

M219. Principles and Applications of Magnetic Resonance Imaging. (4) (Same as Bioengineering M229.) Lecture, three hours; discussion, one hour. Basic principles of magnetic resonance (MR), physics, and image formation. Emphasis on hardware, Bloch equations, analysis expressions, image contrast mechanisms, spin-echo, chemical-shift imaging, and RF pulses. Preparation: one calculus course. Lec-ture, three hours; discussion, one hour. Preparation: one calculus course. Production of real-time ultrasound images, transducer models, STIC, Doppler and color flow instrumentation, biohazards of ultrasound, ultrasound phantom design, and ultrasound tissue char-acterizations, methods of producing real-time ultrasound images, gradient/spin-echo based echo-planar imaging, diffusion/perfusion imaging techniques. Letter grading.

221. Applied Health Physics. (4) Lecture, three hours; discussion, one hour. Requisite: course 216. Basics of radiation safety as applied to medical applications, including techniques wherein ionizing radiation is applied to medical uses of radioactivity. Letter grading.


223. Seminar: Radiation Biology. (4) Seminar, four hours. Exploration of physiologic 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 approaches 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. Letter grading.

225. Contrast Mechanisms and Quantification in Magnetic Resonance Imaging. (4) Lecture, four hours. Requisite: course M219. Introduction to magnetic resonance contrast mechanisms and quantification. Basic tools and understanding of recent MRI developments that have had high impact on field, involving novel pulse sequence design, reconstruction, and therapeutic options for each disease. Description of current and future technologies, as well as techniques that exploit interaction between diagnosis and therapy. Letter grading.

M229. Advanced Topics in Magnetic Resonance Imaging. (4) (Formerly numbered 229.) (Same as Bioengineering M229.) Lecture, four hours. Requisite: course M219. Advanced topics that are currently in development. Topics include advanced diffusion and q-space analysis, chem-ical exchange and magnetization transfer imaging, and relaxometry. Letter grading.

227. Human Disease: Current and Future Role of Biomedical Physics. (4) Lecture, three hours; discussion, one hour. Present and future role 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 technologies, as well as techniques that exploit interaction between diagnosis and therapy. Letter grading.

M230. Computed Tomography: Theory and Application. (4) (Same as Biomedical Engineering M230.) Lecture, four hours. Computed tomography is a three-dimensional imaging technique being widely used in radiology and is becoming active research area in biomedicine. Basic principles of computed tomography and various reconstruction algorithms and characteristics of CT, physics in CT, and various biomedical applications. S/U or 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 clinical treatment planning workflow, general planning principles and strategies, and specific considerations...
for various treatment delivery modalities and advanced treatment techniques. Detailed discussion on dose calculation algorithms and inverse planning and optimization. Clinical treatment planning demonstration using commercial treatment planning systems used to provide practical understanding of clinical applications and implementation. S/U or letter grading.

M248. Introduction to Biological Imaging. (4) Same as Bioengineering M248 and Pharmacology M248.) Lecture, three hours; laboratory, one hour; outside study, three hours. Exploration of role of biological 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.


268. Radiopharmaceutical Chemistry. (4) Lecture, two hours; discussion, two hours. Introduction to advanced concepts in chemistry of radiopharmaceuticals and technologies for radiopharmaceutical production and analysis. Areas of focus are (1) radiopharmaceutical chemistry with fluorine-18 and other isotopes, (2) technologies for synthesis automation and optimization, (3) analytical instrumentation and tools in radiochemistry, and (4) PET tracer design and development. Introduction to multistep process of target identification, tracer design, radiosynthesis development, in vitro and in vivo tracer evaluation, radiochemistry automation for routine production, and preparation of clinical grade doses (as prerequisite for clinical translation of novel molecular imaging tracers). Lectures covering fundamentals complemented with practical sessions that provide hands-on training with technologies and methods used in routine synthesis, synthesis optimization, analysis (and quality control testing), and in vitro and in vivo evaluation of PET probes. S/U or letter grading.

269. Seminar: Medical Imaging. (1) Seminar, one hour. Continuous registration required of students in medical imaging specialty. Topics of current interest in medical imaging, with lecturers from department, other universities, and private industry. S/U or letter grading.

M285. Functional Neuroimaging: Techniques and Applications. (3) (Same as Bioengineering M284, Neurosurgery M285, and Psychology M278.) Lecture, three hours. In-depth examination of activation imaging, including MRI 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 paradigms, and how to interpret results. Laboratory visits and design and implementation of functional MRI experiment. S/U or letter grading.

286. Imaging Registration Techniques. (4) Lecture, four hours. Preparation: strong mathematical background. Examination of state-of-the-art image registration methods. Mathematical description of each different class of registration methods and two-dimensional/three-dimensional/four-dimensional implementation details. Programming of registration methods in MATLAB/C++/CUFI/JAVA interfaces so students learn all registration methods currently investigated. Letter grading.

M424. Functional Magnetic Resonance Imaging Journal. (1) Seminar (Same as Psychiatry M424.) Discussion, 90 minutes. Limited to 10 students. Current topics in functional neuroimaging, with emphasis on novel applications, analysis, and acquisition methods. Presenting paper critique of student papers. Overall emphasis on magnetic resonance imaging. Example areas include tractography through diffusion tensor imaging, jitted event-related experimental designs, parallel receiver MR imaging, integrated electrophysiological and image acquisition. S/U grading.

495. Special Studies in Biomedical Physics. (4) Seminar, two hours; laboratory, four hours. Teaching assistance in graduate laboratory courses under supervision of faculty member. S/U grading.

596. Research in Biomedical Physics. (4 to 12) Tutorial, to be arranged. Directed individual study or research. Only one 596 course may be applied toward MS degree requirements. May be repeated for credit. S/U or letter grading.

587. Preparation for PhD Qualifying Examinations. (4) Tutorial, to be arranged. May not be applied toward MS degree requirements. May not be repeated. S/U grading.

589. Research and for Preparation of MS Thesis. (4 to 12) Tutorial, to be arranged. Two 598 courses (or 596 and 598 combined) may be applied toward MS degree requirements. May be repeated. S/U grading.


PHYSIOLOGY
David Geffen School of Medicine
53-231 Center for Health Sciences
Box 951751
Los Angeles, CA 90095-1751

Physiology
310-825-0481
E-mail contact
Stephen C. Cannon, MD, PhD, Chair
Thomas J. O’Dell, PhD, Executive Vice Chair

Overview
Physiology is the science of the functional activities of the human body. 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.

Applications 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.

Physiology
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.

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 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.


188SC. 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.

189. 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.

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. Required corequisite: course 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. (6) Linear circuit analysis, including admittance, transfer adittance, 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, A/D and D/A converter, with introduction to sampling theory.

221. Cell Physiology: Excitability. (6) Required: course 220. In-depth coverage of general properties of excitable cells, linear cable properties, nonlinear conductor changes, and generation and propagation of the nerve impulse. Voltage gating and gating currents, as well as relationship between macroscopic conductance and single channel properties discussed in analytical detail using original publications.
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

Premajor

All students intending to major in Political Science must enroll as Political Science premajors. After completion of preparation for the major courses, they need to petition to enter the major in the Undergraduate Office, 4269 Bunche Hall.

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.

Policies

Students must complete all premajor 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.

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.

The Major

Required: Ten upper-division courses (40 units) selected from Political Science M105 through 199, each taken for a letter grade. Students are required to maintain a 2.0 overall grade-point average in all upper-division political science courses.
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

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.

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, 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 5GR. Not open for credit to students with credit for course 6.

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. World Politics. (5) Lecture, three hours; discussion, one hour. Required of all students concentrating in Field II. Introduction to problems of world politics. P/NP 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 coupled with particular emphasis on the American case. P/NP or letter grading.

50. Introduction to Comparative Politics. (5) Lecture, three hours; discussion, one hour. Basic institutions and processes of comparative politics. Treatment of themes such as constitutionalism, representation, participation, and leadership coupled with particular emphasis on the American case. P/NP or letter grading.

50R. Introduction to Comparative Politics—Research Version. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced corequisite: course 5R. Not open for credit to students with credit for course 50. Comparative study of constitutional principles, governmental institutions, and political processes in selected countries. P/NP or letter grading.

60. Ethics and Governance. (5) Lecture, three or four hours; discussion, one hour (when scheduled). To study question of can’t we all just get along, students play games of cooperation, coordination, collaboration, and competition and examine whether and how diversity, disagreement, and democracy influence game play, to understand under what conditions diversity feeds productively or counterproductively to group efforts. Development and organization of ideas of common interest through experiential and interactive learning, active and analytical learning, systems thinking, and real-world application. P/NP or 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

M105. Economic Models of Public Choice. (4) Same as Economics M135S. Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: any lower-division political science course. For students interested in the political applications of behavioral economics. Topics include individual choice, collective decision making, and political process. P/NP or letter grading.

Field I: Political Theory

M111A. Ancient and Medieval Political Theory. (4) Same as Classics M121. Lecture, three or four hours; discussion, one hour (when scheduled). For juniors/seniors. Exposition of major political thinkers from Plato to the present. P/NP or letter grading.

M112A. Democratic Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). For juniors/seniors. Exposition of major theories of democracy from Plato to the present. P/NP or letter grading.

M112B. Invention of Democracy. (5) Same as Classics M125. Lecture, three or four hours; discussion, one hour (when scheduled). For juniors/seniors. Exposition of major political thinkers from Plato to the present. P/NP or letter grading.
115. 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 interna- tional relations and international law, with special emphasis on warfare, from conquest of America to end of World War II. P/N or letter grading.

119. Special Studies in Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one course in Field I. Requ- isite: course 10. Designed for juniors/seniors. Intensive examination of one or more special problems appro- priate to political theory. Sections offered on regular basis in previous or current term. May be repeated for credit with topic change. P/N or letter grading.

M119A. Modern Receptions of Ancient Political Thought. (4) (Same as Classics M124.) Lecture, three or four hours. Designed for juniors/seniors. Study of how Western culture has conceived and reinterpreted political thought of ancient Greeks and Romans. Topics in- clude examin-ation of influential case(s) of modern re- ception of classical antiquity. P/N 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 shaping implementation of American foreign policy, with special emphasis on contemporary problems. P/N or letter grading.

120B. World Politics and U.S. Foreign Policy after September 11. (4) Lecture, three or four hours; discus- sion, one hour (when scheduled). Designed for ju- niors/seniors. Video lectures by leading scholars as well as live lectures and discussion on complex prob- lems such as terrorism, nuclear proliferation, and Arab-Israeli conflict. P/N or letter grading.

121A. Studies in Formulation of American Foreign Policy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/se- niors. Study of formulation of American foreign policy with respect to individual cases. Consult Schedule of Classes for topics to be offered in specific term. P/N or letter grading.

122A. War and Order. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requ- isite: course 20. Designed for juniors/seniors. Study of problems of international system seen as community capable of cooperation and development. P/N or letter grading.

M122B. Global Environment and World Politics. (4) (Same as Environment M161.) Lecture, three or four hours; discussion, one hour (when scheduled). Rec- ommended requisite: courses 20, 40. Politics and policy of major global environmental issues such as climate change, integrating law, policy, and political science perspectives. P/N or letter grading.

123A. International Law. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requi- site: course 20. Designed for juniors/seniors. Study of nature and place of international law in conduct of in- ternational relations. P/N or letter grading.

123B. International Organizations. (4) Lecture, three hours; discussion, one hour (when scheduled). De- signed for juniors/seniors. Overview of both theory and functioning of international organizations in pro- moting international cooperation. Required readings include both a survey text and primary readings. P/N or letter grading.

124A. International Political Economy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required for seniors. Study of political aspects of inter- national economic issues. P/N or letter grading.

124C. Politics of Latin American Economic Develop- ment. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended for juniors/se- niors. Interaction of international and domestic factors in political and economic evolution of Latin America. P/N 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- minants of arms and nuclear war: roles of technology and ideology; nuclear proliferation; outer space. P/N or letter grading.

126. Peace and War. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requ- isite: course 20. Designed for juniors/seniors. Theory and research on causes of war and conditions of peace.

127A. Atlantic Area in World Politics: Western Eu- rope. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of international relations of the Atlantic States for United Kingdom, West Germany, France, Italy, and other European members of NATO, in regard to European security in context of Atlantic Al- liance. P/N or letter grading.


128B. International Relations of Post-Communist Russia. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: courses 20, 105. Designed for seniors. Analysis of foreign policy of post-Communist Russia, with special em- phasis on Russia’s relations with NATO, the former communist states of East Central 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 set- tings, and theory and practice of deterrence and coer- cion. Use of game theoretic and historical analysis. Prior exposure to both useful but not re- quired. P/N or letter grading.

132A-M132B. International Relations of Middel East. (4–4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/se- niors. P/N or letter grading. 132A. Requisite: course 20. Contemporary regional issues and conflicts, with particular attention to inter-Arab politics, Arab-Israeli conflict, and Persian Gulf crises. (Same as Honors Collegium M157.) Role of great powers in Middle East, with emphasis on American, Soviet, and West European policies since 1945.

134A. U.S. Foreign Policy Decision Making and Tools of Statecraft. (4) Lecture, three or four hours; discus- sion, one hour (when scheduled). Requisite: course 120A. Designed for juniors/seniors. Contrasts purpo- sive and process models of individual and group deci- sion making. Impact of strategic interaction and situa- tional factors on foreign policy decision making. Impli- cations for policy choice of tools of statecraft (i.e., threats/promises, military/ economic/diplomacy). P/N or letter grading.

135. International Relations of China. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of various theoretical approaches to international rela- tions. P/N or letter grading.

138A. International Politics, 1815 to 1914. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Classic peri- odi of European great power politics, beginning with peace settlement at end of Napoleonic wars and ending with coming of World War I. P/N or letter grading.
Field III: American Politics

140A-140B-140C. National Institutions. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Comparative study of the factors which affect character of the legislative process and capacity of representative institutions to govern in contemporary society. 140B. The Presidency. Study of nature of presidential leadership, institutionalizing the presidency, and implications for current political controversies. 140C. Supreme Court. Introduction to American constitutional development and role of Supreme Court as interpreter of the U.S. Constitution. Reading of Supreme Court cases as well as various historical and current commentaries.

M141A. Electoral Politics: Political Psychology. (4) (Same as Psychology M138.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: one or more courses from Economics 1, 2, 5, 11, or 101. Examination of how public issue life-cycle is shaped by (1) economic and political incentives of various actors—business, news media, mass public, organized interests, Congress, the president, regulatory agencies, and courts and (2) ideology, cognitive biases, and ethical reasoning. P/NP or letter grading.

143A. Subnational Government: American State Government. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of how public political influence of state power is shaped by the interaction of state government and mass public opinion, interest groups, and party system on the presidency and national policy-making. 143B. Metropolitan Governance. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of how political, social, economic, and cultural factors influence metropolitan governance in both U.S. central cities and suburban areas. Study of some of the major issues that arise in metropolitan governance through classic and contemporary readings on political power, political economy of cities, and racial economic 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 some of the factors which have led American suburbs, particularly in post-WWII era, to become a form of political, social, and economic governance that is distinct from city or national government. 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. Study of courts and history of American 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 constitution. P/NP or letter grading.

145D. Public Law and Judicial Process: Judicial Oversight of Bureaucracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Legal regulation of administrative 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 limitations. P/NP or letter grading.


146B. 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 ideologies, values, behaviors, communication, networks, and concepts of organization. P/NP or letter grading.

146E. Organization Theory, Public Policy, and Administration: National Policy 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). Designed for juniors/seniors. Examination of one period in American political history. Critical features fostering stability and change. Discussion of contributions to structure and function of contemporary American politics. Possible periods: Founding, Reconstruction, Progressive Era, New Deal, and Cold War. Consult Schedule of Classes for topics to be offered in specific term. P/NP or letter grading.

147C. American Political Development: Institutional Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of one American political institution and its development over time, or interaction of American politics and some aspect of culture and society. Assessment of both positive and negative implications of the development of a particular institution. P/NP or letter grading.

149. Special Topics in American Government and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of one of more special problems associated with American politics. Sections offered on regular basis, with topics announced in preceding term. 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, mass uprisings, coup d’etat, assassination, 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. Comparative study of government and politics in contemporary Africa, 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 four or four of economic and political factors in African development, with 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 Schedule of Classes for 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 or four hours; discussion, one hour (when scheduled). Exploration of how governments at international, national, and regional levels are addressing—or not addressing—extraordinary challenge of climate change. Use of readings, lectures, and discussions to better understand consequences, policies, and success stories related to most important political problem of our time—not just in the U.S., but in other major parts of the world. Intensive study of processes of change, and concentration on energy use, rather than agriculture, forestry, and land use. Letter grading.

152A. Contemporary and Current Issues in Politics and Policies of Western Europe: West European Government and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required course 50. 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). Required course 50. Designed for juniors/seniors. Comparative study of governmental and political development, organization, and practices. P/ NP or letter grading. 154A. States of Middle America. Enforcement of requirements: course 50 or 50R. 154B. States of South America.

155A. 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 legacy of Soviet Union. 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 in the Arab States, Turkey, Israel, and Iran. P/ NP or letter grading.

158. Northeast Asian Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required course 50. Designed for juniors/seniors. Historical transformations of Korean, Japanese, and Chinese political systems in the context of their political, economic, and social development. 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 support and ideology. Focus on Germany, including Nazi economic policy (Third Reich). 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. Religious and spiritual foundations of Islamic legal and political institutions; legitimacy of historical and contemporary Islamic regimes, movements, and ideologies; political strategies of Islamic activism. P/ NP or letter grading.

166. Comparative Constitutional Design. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparison of major constitutional systems in the world, including presidential versus parliamentary, unicameralism 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 actions of other actors). Result is that institutions affect political outcomes in systematic ways. P/ NP or letter grading.

167D. Political Institutions and Economic Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one statistics course. Designed for juniors/seniors. Use of statistical methods to interpret data and test theories of political-economic development and political economy approach to puzzle of why some countries are rich and others are poor. Use of model to be used to make policy conclusions. Requisite for: Field IV or V. Letter grading.

168. Comparative Political Analysis. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: two courses in Field IV, or course 50 and one course in Field IV. Designed for juniors/seniors. Comparison of institutions. Methods and measures. Required for: Field IV or V. Letter grading.

Field V: Methods and Models

170A. Studies in Statistical Analysis of Political Data. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one course 50 or 6R. Designed for juniors/seniors. Use of statistical methods to interpret data and test theories of political-economic development. Requisite for: course 50 or 6R. Designed for juniors/seniors. How do social and political movements convince people to participate? Consideration of various theoretical perspectives, including game-theoretic, social network, structural, and identity approaches, illustrated by case studies. P/ NP or letter grading.

171A. Applied Formal Models: Collective Action and Voting Rules. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required course 50. Designed for juniors/seniors. Analysis of political systems. Requisite for: course 50 or 6R. How do social and political movements convince people to participate? Consideration of various theoretical perspectives, including game-theoretic, social network, structural, and identity approaches, illustrated by case studies. P/ NP or letter grading.

171A. Collective Choice and Majority Rule. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one course 50. Designed for juniors/seniors. How do different ways of counting and counting different votes affect political decision? Requisite for: course 50 or 6R. Design for juniors/seniors. How do social and political movements convince people to participate? Consideration of various theoretical perspectives, including game-theoretic, social network, structural, and identity approaches, illustrated by case studies. P/ NP or letter grading.

171C. Legislative Strategy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one course 50 or 6R. How do politicians get policy changes passed by legislatures, city councils, and other voting bodies? Applications of game-theoretic reasoning to collective action and tactics in legislative settings. P/ NP or letter grading.

171D. Negotiation. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: course 50. Designed for juniors/seniors. Study of negotiation and bargaining in different contexts. Experimental exercises with emphasis on various aspects of negotiation, including coalition formation, honesty, and role of agents. P/ NP or letter grading.

172. Strategy and Conflict. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one course 50 or 6R. How do politicians get policy changes passed by legislatures, city councils, and other voting bodies? Applications of game-theoretic reasoning to collective action and tactics in legislative settings. P/ NP or letter grading.

179. Special Topics in Methods and Models. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: course 50. Designed for juniors/seniors. Intensive preparation of one more
special problems related to methods and models 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.

Field VI: Race and Ethnic Politics

M180A. African American Political Thought. (4) (Same as African American Studies M140C and Labor Studies M180A.) Lecture, three or four hours; discussion, one hour (when scheduled). Introduction to African American political thought, with focus on major ideological trends and political philosophies as they have been interpreted and reinterpreted by 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 on race or ethnicity from history, psychology, or sociology. Requisite: course 40. Designed for juniors/seniors. Focus on understanding relationships and interaction between institutional contexts of Latino life, such as economy, state, and cultural system on one hand and structure of everyday life in Latino households, neighborhoods, and communities on the other. P/NP or letter grading.

M181B. U.S. Latino Politics. (5) (Formerly numbered 181B.) (Same as Chicana/o and Central American Studies M155B.) Lecture, four hours; discussion, one hour (when scheduled). Examination of history and contestations of role of Latinos in U.S. political system. Topics include historical analysis of Latino immigration and migration; civil rights movement; 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 response by Latinos today, with discussion of role of Latino vote in recent presidential elections. P/NP or letter grading.

M182. 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 course or one upper-division course on race or ethnicity from history, psychology, or sociology. Requisite: course 40. Designed for juniors/seniors. Emphasis on dynamics of minority group politics in the United States, 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 African Americans, (2) to analyze important political issues facing black Americans, (3) to sharpen students’ analytical skills. P/NP or letter grading.

M184A. Black Experience in Latin America and Caribbean I. (4) (Same as African American Studies M154C.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Culture, history, politics, and identity of African Americans in the Western Hemisphere, including Caribbean, Latin America, and Central America. Examination 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. Course includes emphasis on comparisons to U.S. and within Latin America. Covers populations of African and indigenous origins, with emphasis on former. P/NP or letter grading.

185. Special Studies in Race, Ethnicity, and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 40. Designed for juniors/seniors. Intensive examination 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 College M191DC. (Same as CAPPP M191DC) Tutorial, one hour (when scheduled). 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 M191DC. Independent 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. Independent 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. Designed as pre- or co-requisite 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 consent 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 maximum of 4 units. Individual honors contract required. Honors consent noted on transcript. Letter grading.

190. Research Colloquia in Political Science. (1) Seminar, one hour. Designed to bring together students undertaking supervised tutorial research in seminars 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.

190H. Honors Research Colloquia in Political Science. (1) Seminar, one hour. Designed to bring together students writing departmental honors theses in seminar setting with one or more faculty members to discuss their thesis work in progress. Led by one supervising faculty member. P/NP grading.

191-191F. 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 3.5 grade-point average in upper-division political science courses. Consent of instructor required. P/NP grading.

191A. Political Theory. (191B, Interdepartmental Relations) (191C. Politics, 191D. Comparative Government; 191E. Methods and Models; 191F. Race, Ethnicity, and Politics.) (Same as History M191DC, Public Affairs M191DC, and Sociology M191DC.) Lecture, four hours. Limited to CAPPP program students. Preparation: one course 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 seminars. 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.

191H. Research Design Seminar for Honors Thesi- sis. (4) Seminar, four hours; Preparation: one course in 191 series, 3.5 grade-point average in upper-division political science courses and Political 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 seminars emphasize critical and constructive discussions of students’ topics, as well as problems in 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 to be offered 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. Seminar discussion of research methods and current literature in field of research of faculty member or students. May be repeated for credit. P/NP grading.

M195DC. CAPPP Research Seminars. (Same as History M194DC and Sociology M194DC.) Seminar, three hours. Limited to CAPPP Quarter in Washington students and other students enrolled in UC Washington Center programs. 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 seminars. 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.

195CE. Community and Corporate Internships in Political Science. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internships in corporate, governmental, or nonprofit setting coordinated through Center for Community Engagement. Students complete weekly written assignments, attend biweekly meetings with graduate student supervisor, and write a paper. Faculty supervisor 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. At least eight to 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. CAPPP, Washington, DC, Internships. (4) (Same as History M195DC, Public Affairs M195DC, and Sociology M195DC.) Tutorial, four hours. Limited to junior/senior CAPPP 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 Political Science. (1 to 4) Tutorial, two hours. Requisite: course 191H. Limited to juniors/seniors. Development of 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 Political Science. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or
200A. Probability and Inference for Social Science. (4) Lecture, three hours; discussion, one hour; field work, eight hours. Requisites: courses 200A, 200B. Preparation: familiarity of basic probability theory and statistics, multivariate calculus, basic linear/matrix algebra. Clarification of conditions under which estimates made using non-experimental data can be given causal interpretation. Strategies for accessing and maximizing credibility of causal claims made from non-experimental evidence. Designs and methods, including experiments, matching, regression, panel methods, difference-in-differences, synthetic 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. Preparation: courses 200A through 200E. Introduction to theory and practice of maximum likelihood analysis in political science, including discrete choice models, event count models, and duration models. Lectures emphasize mathematical and statistical derivations of estimators and their properties with Monte Carlo simulations and discussion of applications and 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 level of course 200D. Covers design, analysis, and implementation of experimental research in social sciences. Emphasis on field experiments, though most issues that are covered are relevant for other modes including laboratory, laboratory-in-the-field, and survey experiments. 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 interest. May be repeated for credit. S/U or letter grading.

200X. Data Analysis Workshop. (4) Seminar, three hours. Enforced requisite: course 200C. Not open to 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. Not open to 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 formal political theory to enhance literacy and provide analytical tools without presupposing mathematical background. Model building, collective goods, unanimity and the social contract, paradoxes and impossibility theorems, stability, individual liberty and decennialization, strategic manipulation representation, vote trading.

201B. Theory of Collective Choice. (4) Seminar, three hours. 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 abstract, deductive study of voting systems 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 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 in nonmarket settings. Specific topics include externalities, public goods and allocation mechanisms, collective action, spatial models, structure-induced equilibrium, and information economics.

204A. Game Theory in Politics I. (4) Seminar, three hours. Survey of game theory, 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.

204B. Game Theory in Politics II. (4) Seminar, three hours; fieldwork, eight hours. Requisite: course 204A. Intermediate game theory course. Topics include game theory of bargaining, 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.

204C. Game Theory in Politics III. (4) Seminar, three hours; fieldwork, eight hours. Requisites: courses 204A, 204B. Advanced game theory course, with emphasis on new and/or advanced techniques. Topics include timing 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.

208B. Topics in Applied Game Theory. (4) (Same as Economics M215.) Lecture, three hours. Preparation: calculus or introductory probability. Designed for graduate economics 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.

208D. Multivariate Analysis with Latent Variables. (4) (Same as Psychology M257 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 models in multivariate analysis. Causal modeling: theory testing via analysis of moment structures. Measurement models such as confirmatory, higher-order, and structured 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.

208E. Bayesian Econometrics. (4) (Same as Economics M232A.) Lecture, three hours. Requisites: Economics 231A, 231B. Subjective probability, introduction to decision theory, Bayesian analysis of regression, sensitivity analysis, simplification of models, calibration. May be repeated for credit. S/U or letter grading.

209. Special Topics in Formal Theory and Quantitative Methods. (4) Seminar, three hours. S/U or letter grading.

Political Theory

210A-210B. Political Theory Field Seminar 1, 2. (4–4) Lecture, three hours; field work, eight hours. S/U or letter grading. 210A, Exploration of major texts and issues in political theory. 210B. Further exploration of major texts and issues in political theory.


214. Political Theory in Transnational Context. (4) Seminar, three hours; discussion, one hour (when scheduled). Critical analysis of ideas and practices of postcolonial, feminist, postmodern, and poststructuralist theories that assess impact of processes of globalization on such major concepts and problems of traditional social and political theory as sovereignty, citizenship, rights, community, representation, and democracy. S/U or letter 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, postmaterialism, group rights theories, etc.). S/U or letter grading.

217. Selected Texts in Political Theory. (4) Seminar, three hours. Critical examination of major texts in political theory, with particular attention to their philosophical system, their relations to contemporary political and intellectual currents, and importance of system for present-day political analysis. S/U or letter grading.

218. Selected Topics in Political Theory. (4) Seminar, three hours. Critical examination of major problems in political theory. S/U or letter grading.


International Relations

220A. International Relations Core Seminar I. (4) Seminar, three hours. Introduction to international relations theory: 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 move influences the other person’s choice by affecting his expectations of how we will behave. Discussion of theories of deterrence, coercion, diplomacy, conflict management, war termination, and negotiation. Use of various theoretical approaches to explaining strategic interaction, including psychology, bargaining theory, and game theory.

225. American Foreign Policy. (4) Discussion, three hours. Discussion of approaches used to explain foreign policy-making at individual, small group, bureaucratic, and domestic politics levels. Application to selected cases in American foreign policy.

226. Making of American Foreign Policy. (4) Seminar, three hours. Analysis of political formulation process and substance of selected contemporary problems in foreign policy. Political and institutional factors affecting foreign policies; analysis of policy options, 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. Interaction between international trade and investment and domestic political economics of both industrialized and industrializing societies.

232. International Political Economy II. (4) Seminar, three hours. Designed to develop PhD students' skills in setting up and solving simple institutional design, political economy, signaling, and participation models, as well as two-level game models of domestic politics and international conflict and cooperation, with emphasis on applications in international political economy and comparative politics.

233A-233B-233C. Political Economy Workshops (4—4—4). Discussion, 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 of publishable length and quality required. S/U or letter grading.

234A-234B-234C. Workshops: National Security, Foreign Policy, and International Relations (0—0—12). Discussion, two hours. Preparation: successful completion of major field examinations. Course 234A is requisite to 234B, which is requisite to 234C. Courses must be taken in sequence. Workshops for students preparing for or working on dissertations. Reading and discussion of research in progress presented by UCLA faculty, visiting scholars, and advanced graduate students. Research paper required. In Progress (234A, 234B) and letter (234C) grading.

239. Selected Topics in International Relations. (4) Seminar, three hours. S/U or letter grading.

Comparative Politics

240A-240B. Seminars: Comparative Politics. (4—4) Seminar, three hours. Course 240A is not requisite to 240B. Letter grading. 240A. Survey of ideas and approaches that have been historically important in the field of comparative politics, with selection of theories and methodologies used by practitioners in the field.


244. Latin American Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Latin American politics. S/U or letter grading.

245. Middle Eastern Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Middle Eastern politics. S/U or letter grading.

246A. Western European Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Western European politics. S/U or letter grading.

246B. Political Development of Modern Europe. (4) Seminar, three hours; discussion, one hour (when scheduled). Principal phases of political development from high feudalism to the present, together with theories of causation.


247A. Evolution of Soviet and Russian Politics. (4) Seminar, three hours; discussion, one hour (when scheduled). Seminar surveying political evolution of Soviet Union and its transformation.

247B. Domestic Context of Russian Foreign Policy. (4) Seminar, three hours. Examination of domestic social, political, bureaucratic, and organizational sources of Russian foreign and strategic policy. S/U or letter grading.


251. Political Economy of Economic Reform. (4) Discussion, three hours. Some familiarity with economics helpful. Principal political and economic arguments for economic reform and consideration of political issues that arise from this process. Letter grading.

252. Parties and Party Systems. (4) Seminar, three hours; discussion, one hour (when scheduled). Theories and practices of political parties, party systems, and elections in comparative perspective.

253. Political Change in Communist Systems. (4) Discussion, three hours. Examination of political context and consequences of structural reform in Communist systems; theories of post-Leninist political pluralization and convergence.

254A. Institutions and Comparative Politics: Comparative Institutional Analysis. (4) Seminar, three hours; discussion, one hour (when scheduled). Use of advances of rational choice theory and new institutionalism to compare and analyze major institutional structures, including competition vs. protectionism, Capitalism vs. Socialism, Realism vs. Constructivism, unification vs. federalism, Liberalism vs. Authoritarianism, unicameralism vs. bicameralism, two-party vs. multiparty systems, cadre vs. mass parties, and plural vs. proportional electoral systems.

254B. Institutions and Comparative Politics: Political Institutions, Delegation, and Policy-Making. (4) Seminar, three hours; discussion, one hour (when scheduled). Analysis of political foundations of policy making. Characterization of democratic institutions as a series of delegations, from voters to elected officials, within parties and legislatures, and from elected politicians to unelected bureaucrats. Examination of implications of different institutional designs for how those delegations are made and controlled.

255. Seminar: Political Economy of Developing Countries. (4) Seminar, three hours. Interdisciplinary seminar directed toward comparative analysis of political development and modernization. S/U or letter grading.

256. External Sources of Domestic Politics. (4) Discussion, three hours. Theoretical and historical studies of impact of war and trade on domestic cleavages, policy, and institutions. S/U or letter grading.

257. Labor and Working-Class Politics. (4) Discussion, three hours. Questions and topics on comparative labor and working-class politics. S/U or letter grading.

258. Comparative Politics: In-Progress. (2) Seminar, 90 minutes. Biweekly speaker series featuring presentation of unpublished research papers by comparative politics faculty members as well as external scholars. Required participation and written assignments. S/U or letter grading.

259. Selected Topics in Comparative Politics. (4) Discussion, three hours. Critical examination of major problems in comparative politics. S/U or letter grading.

American Politics


M261A. Proseminar: Political Psychology. (4) (Same as History M236A and Psychology M228A.) Seminar, three hours. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision making.

261B. Mass Attitudes and Political Behavior. (4) Seminar, three hours. Requisite course 141B or 260A. Analysis of development and measurement of political attitudes in mass publics and their relationship to voting, protest, and violence. S/U or letter grading.

261C. Political Communication. (4) Discussion, three hours. Broad survey of research bearing on role of mass media in the American political process. Topics include theories of persuasion, evolution of media effects research, reporting and advertising as determinants of election outcomes, adversarial versus deferential journalism, and analyses of media bias.

M261D. Seminar: Political Psychology. (4) (Same as Psychology M228B.) Discussion, three hours. Requisite: course M261A or Psychology 220A. Examination of political behavior, political socialization, racial conflict, mass political movements, and public opinion. S/U or letter grading.

M261E. Critical Problems in Political Psychology. (4) (Same as Psychology M228C.) Discussion, three hours. S/U or letter grading.

262. Political Parties. (4) Seminar, three hours. Critical examination of literature on party systems and organizations. Special attention to political functions, electoral campaigns, and party cadres. S/U or letter grading.


266. Group Theories of Politics. (4) Discussion, three hours. Critical appraisal of group theory approaches to study of political decision making, with special attention to emphasis on research problems and findings. S/U or letter grading.


270. Legislative Behavior. (4) Seminar, three hours. S/U or letter grading.


270. Legislative Behavior. (4) Seminar, three hours. Analysis of executive organization and leadership, with emphasis on American President. Special attention on theories of organization and personality and relationship between executive and other institutions and groups. S/U or letter grading.


Race, Ethnicity, and Politics

280A. Race and Ethnic Politics Field Seminar 1. (4) Seminar, three hours; field work, eight hours. Theories, methods, and development of paradigms in study of race and ethnic politics. S/U or letter grading.

280B. Research Methods in Race-Ethnicity Politics. (4) Seminar, three hours; field work, eight hours. Second course in race-ethnicity politics field seminar sequence. Review, discussion, and debate of different research methods that are used in race-ethnicity politics scholarship and advantages and disadvantages of different approaches and methodologies. S/U or letter grading.

289A. Approaches to Study of Race, Ethnicity, and Politics. (4) Seminar, three hours. Analysis of alternative theoretical, methodological, and empirical approaches to study of race, ethnicity, and politics. S/U or letter grading.

289B. Current Research on Race, Ethnicity, and Politics. (4) Seminar, three hours. Exploration of current research on race, ethnicity, and politics. S/U or letter grading.

Special Studies

290. Modern Political Economy. (4) Discussion, three hours. Discussion of implications for understanding politics of thinking of politicians, bureaucrats, producers, consumers, and nations as utility maximizers. Topics include microfoundations for macro-models, forms of political participation, state, government regulation, growth of government, bureaucracy elections, public policy, inflation. S/U or letter grading.

292A. Introduction to Political Inquiry: Problems of Scientific Inquiry and Normative Discourse. (2) Seminar, two hours; discussion, one hour (when scheduled). S/U grading.

292B. Introduction to Political Inquiry: Research Design. (4) Seminar, three hours; discussion, one hour (when scheduled). Design of qualitative and quantitative empirical research projects. S/U or letter grading.

293. Great Ideas in Social Sciences. (2) Seminar, two hours. Vehicle for faculty and visitors to teach research seminars of variable length. Special training opportunities on advanced quantitative methods, including complexity theory, agent-based modeling, experimental economics, social cognitive neuroscience, and evolutionary psychology, to be offered at irregular intervals. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. 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.

495. Teaching Political Science. (4) Seminar, to be arranged. Seminar in teaching techniques, including evaluation of each student’s own performance as a teaching assistant. Normally to be taken by all new teaching assistants in first term of their assistantships. May be taken only in term in which students are teaching assistants. May not be applied toward MA or PhD course requirements. S/U grading.

495B. Teaching Political Science 2. (4) Seminar, two hours. Requisite: course 495A. Workshop in teaching techniques, including evaluation of each student’s own performance as teaching assistant. Normally to be taken by all new teaching assistants in first term of their assistantships. May be taken only in term in which students are teaching assistants. May not be applied toward MA or PhD course requirements. S/U grading.

501. Cooperative Program. (2 to 8) 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.

596. Directed Individual Study or Research. (2 to 4) Tutorial, to be arranged. May be applied only three times toward minimum course requirement in first two years. May be repeated. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May be repeated. S/U grading.


PSYCHIATRY AND BIOBEHAVIORAL SCIENCES

David Geffen School of Medicine
37-356 Semel Institute
Box 951759
Los Angeles, CA 90095-1759

Psychiatry and Biobehavioral Sciences
310-206-5110

Alexander S. Young, MD, Interim Executive Chair
Barry H. Guze, MD, Vice Chair
Alex J. Kopelowicz, MD, Vice Chair
Ira M. Lesser, MD, Vice Chair
Stephen R. Marder, MD, Vice Chair
James T. McCracken, MD, Vice Chair
Thomas B. Strouse, MD, Vice Chair
Bonnie T. Zima, MD, MPH, Associate Chair, Academic Affairs
Margaret L. Stuber, MD, Associate Chair, Medical Student Education

Overview

The Department of Psychiatry and Biobehavioral Sciences offers interdisciplinary courses related to the mental health professions of the biobehavioral sciences in addition to its programs for psychiatry interns and residents and for medical students. Enrollment in department courses is limited to registered UCLA students, students registered in programs officially affiliated with UCLA, and students enrolled concurrently through UCLA Extension. Students who meet these requirements, but who are not affiliated with a departmental training program, must 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 experiences. 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 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, 37–360A Semel Institute, 310–794–5715.

Psychiatry and Biobehavioral 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.

79. Applied Positive Neuroscience: Skills for Improving Productivity and Wellbeing. (5) Lecture, three hours; discussion, one hour. Not open to students with credit for Community Health Sciences 179. Intrapersonal, interpersonal, and extrapersonal contributions to wellbeing, and how activity and chemistry of key brain regions contribute to each. Changes in brain activity and oxytocin system is altered by social interaction. Students learn to recognize relationship 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 maturational tasks for young adults, including emotion regulation, managing social relationships, enhancing productivity, and identity development. 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 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

174. Brain and Behavioral Health: Childhood and Adolescence. (3) Seminar; three hours. Limited to junior/senior Neuroscience or Psychology majors. Integration of problem-based learning approach to teach foundational information about application of brain and behavioral science to understanding of promotion of child and adolescent mental health. Exploration of integration of developmental psychopathology, applied treatment research, and public policy to identify
and dismantle barriers to problems. Focus on set of key topics (e.g., autism, mood disorders, anxiety disorders, and substance use disorders) during childhood and adolescence. Research of childhood and adolescent mental health and public policy literature. Guest facilitators with expertise complement study of emerging treatment advances, applications, and barriers. Letter grading.

175. Mindfulness Practice and Theory. (4) Seminar, five hours. Designed for beginners; prior experience with meditation not required. Introduction to mindfulness, including basic mindfulness meditation practices, both sitting and moving, ways to deepen positive emotions, and the use of everyday activities and joys for integrating more awareness and creativity into ordinary activities. Examination of varying meditative traditions as well as emerging science on beneficial effects of mindfulness practice for mental and physical health. Beneficial effects include reduced stress, improved attention, reduced emotional reactivity, and greater mind-body awareness. Learning and development of practical skills of relational mindfulness in interactions with others. Offered in summer only. P/NP or letter grading.

176. Brain and Behavioral Health: Adulthood and Aging. (5) Seminar, five hours. Limited to junior/senior Neuroscience or Psychology majors. Introduction to problem-based learning approach to teach foundational information about application of brain and behavioral science to understanding and promotion of mental health, behavior, and aging. Exploration of integration of developmental psychopathology, applied treatment research, and public policy to identify and dismantle barriers to problems. Focus on set of key topics (e.g., depression, dementia, post-traumatic stress disorder) during adulthood and aging. Research of mental health and public policy literature. Guest facilitators with expertise complement study of emerging treatment advances, applications, and barriers. Letter grading.

177A-177B. Brain and Behavioral Health Clinical Practicum. (4-6) Fieldwork, six hours; discussion, one hour. Designed to provide students with integrated set of learning experiences related to mental health and wellness across lifespan. Through applied approach to brain and behavioral science, exploration of integration of developmental psychopathology, assessment and treatment research, and public policy to address issues related to psychological health and wellness. Focus on key topics (e.g., different classes of psychiatric illness) during childhood, adolescence, and adulthood. Discussion of the impact of exposure to health-setting, clinical populations, and interdisciplinary teams that treat them. Students participate in assigned health setting under supervision of faculty mentor. Consideration of the implementation of activities in clinical health setting, students see firsthand how brain and behavior science translates into real-world care. In Progress (177A) and letter (177B) grading.

178. Cannabis and Cannabinoids: From Pharmacology to Public Policy. (4) Lecture, three hours. Designed for undergraduate students with biology, human biology and society, neuroscience, physiology, or psychology background and graduate students in neuroscience-related programs. Relevant for those considering career in medical, social science, or policy fields. Offers comprehensive didactic information concerning the effects of cannabinoids on the human body, including interactions with clinical and societal use of plant and its extracts. Analysis of pharmacology of exogenous and endogenous cannabinoids at the molecular, cellular, and behavioral levels. Examination of physiological and psychological actions of phyto-cannabinoids (focusing on THC and CBD) and synthetic cannabinoids and evidence-based research of potential benefits and harms of different classes of cannabinoid products. Discussion of issues related to cannabinoid policy including, legislation, FDA regulation, and health care services. P/NP or letter grading.

M182. Personal Brain Management. (4) Same as Neuroscience M181.) Seminar, four hours. Basic overview of the science and treatment of management methods that exist already, and what future may hold. New methods for predicting our own futures and 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 environmental 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, and setting small, immediate goals for learning, meditation, neurofeedback, and time management. Critical appraisal of tools to help students distinguish scientifically validated procedures. Offered in summer only. 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. (2) Tutorial, to be arranged. Enforced corequisite: course 188SA. 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 to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

197. Individual Studies in Psychiatry. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with specialized readings to be selected and agreed upon between faculty mentor and student. Asigned reading and tangible evidence of mastery of subject matter required. May be taken for letter grade or credit. Individual contract required. Additional information and contract forms are available in Office of Education, 38-216 Semel Institute, P/NP or letter grading.

199. Directed Research in Psychiatry and Biobehavioral Sciences. (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 Courses


M230. Communication of Science. (2) Same as Biostatistics M232.) Lecture, two hours; discussion, one hour. Presentation of various types of scientific writing with emphasis on reading and writing specific articles and reports: methods, results, discussion, writing of review article. Grant submissions: aims, background, results, design, Role of amendments. Communication of science to public, S/U or letter grading.

M232. Causal Inference. (4) Same as Biostatistics M235.) Lecture, three hours; discussion, one hour. Requisites: Biostatistics 202C, 202B, or equivalent. Philosophical foundations, logical paradoxes, decision analysis, selection bias, confounding, ecological paradox, historical development, potential outcomes, Rubin causal model, propensity score, competing perspectives on path analysis 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 M230.) Seminar, two hours. General topics related to primary affective disorders (depression, mania, bipolar disorder, schizophrenia) and substance use disorders, including diagnosis, pharmacology, epidemiology, psychology, phenomenology, biology, and treatment. Students enrolled for 4 units are assigned a more intensive reading list and required to present a paper or prepare a research paper.


237. Seminar: Behavioral Neuroimmunology. (1) Seminar, one hour per month; discussion, 30 minutes per month. Series of lectures presented the second Wednesday of each month throughout academic year by invited speakers. S/U grading.

M238. Survey Research Techniques in Psychocultural Studies. (4) Same as Psychology M238.) Seminar, three hours. Designed for graduate students. Techniques for conceptualizing, conducting, and analyzing survey data; introduction to new strategies for enhancing survey research on psychosocial problems.

M240. Assessment and Treatment of African American Families, (3) Same as African American Studies 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 historical background, and economic status. Didactic presentations by instructors and invited guests forms basis for supervised evaluation and case management with African American families. Letter grading.

243A-243B-243C. Mental Retardation and Chronic Medical Illness Interdisciplinary Core Curriculum. (1–1–1) Lecture, 90 minutes. Survey series on major topic areas of mental retardation and chronic medical illness, covering epidemiology, nosology, assessment, healthcare delivery systems, basic genetics, nutrition, direct care, and special deficits. Presented in interdisciplinary framework as generic information independent of discipline.

253. Seminar: Child Development. (1) Theories of development, systems of child development, and chronological aspects of child development. Presentation of assigned readings by students plays major role in seminar.


259. Legal and Ethical Issues with Vulnerable Populations. (3) Lecture, 90 minutes; laboratory, three and one-half hours. Discussion of current laws dealing with vulnerable populations (e.g., children, developmentally disabled people, elderly people); philosophies, ethics, ethical 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, DNs, or PhD). Overview of principles of clinical pharmacology, especially as related to pediatric issues.
they relate to clinical and translational medicine and to advances in contemporary medicine such as targeting, gene therapy, and genomics. Letter grading.

264. Health and Mental Health Disparities from Psychosocial and Cultural Perspectives. (4) Seminar, three hours. Designed for graduate and medical students, including fellows and junior/senior medical students (with consent of instructor) interested in learning about general, sexual, and mental health disparities. Course covers 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 disease states such as AIDS, substance abuse, depression, and breast and prostate cancer. Discussion of stereotypes and myths about healthcare of ethnic populations. Examination of psychosocial and cultural contexts as potential or contributing factors. S/U or letter grading.

M270. Neural Basis of Memory. (4) (Same as Neuroscience M273.) Lecture, two hours; discussion, one hour. Anatomical, physiological, and neurobiological data integrated into models for how neuronal phenomena of memory arise. Discussion of invertebrate memory, cortical conditioning, hippocampus and declarative memory, and frontal lobes and primary memory.

M272. Psychological Anthropology. (4) (Same as Anthropology M272.) Lecture, 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 cultural context. Exploration of questions relating to symbolic and unconscious process as they relate to culture. Topics vary from term to term. May be repeated for credit with topic change. S/U or letter grading.


275. Psychoneuroimmunology Research Seminar. (1) Seminar, one hour. Topics to be centered around current directions in psychoneuroimmunology (PNI), including social genomics, inflammation, and biologizing. Common molecular and immunological protocols used in PNI and current directions in PNI research, with emphasis on basic immunology and immunomolecular biology, and the behavioral and psychological factors on immune and cell-ageing processes. S/U grading.

277. Cognitive Behavior Therapy with Children: Treatment and Systems of Care. (2 or 4) (Same as Psychology M277.) Seminar, two hours. Designed for graduate students. Cognitive/behavioral approaches to prevention and treatment of mental health problems in children. Examination of service delivery systems for treating troubled youth and discussion of issues with respect to current systems of care. Major problems include conduct disorders, attention deficit disorder, depression, anxiety, and learning disabilities. Letter grading.

281A—281B—281C. Behavioral Therapy in Educational Settings. (4–4–4) Lecture, one hour; laboratory, seven hours. Supervised experience in classroom working with students in constructing theoretical competencies, administering formal assessments, and developing and carrying out individualized educational and behavioral programs. Theoretical background and clinical skills developed through one-hour weekly lecture. S/U or letter grading.

M284A—M284B. Principles of Neuroimaging I, II, (4–4) (Same as Neuroscience M284A—M284B and Psychology M284A—M284B.) Lecture, four and one half hours. Preparation for competence in integral calculus, electricity and magnetism, computer programming (any language), general statistics. Requisite: course 282. Course M284A is requisite to M284B. Instrumental 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, magneticencephalography, transcranial magnetic stimulation, near infrared imaging. Letter grading.

M285. Functional Neuroimaging: Techniques and Applications. (3) (Same as Bioengineering M284, Neurobiology and Physiology in Medicine M284, and Psychology M278.) Lecture, three hours. In-depth examination of activation imaging, including MRI and electrophyysiological 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 paradigms, and how to interpret results. Laboratory visits and design and implementation of functional MRI experiments. S/U or letter grading.

287. Small Group Cognitive/Behavioral Interventions. (4) Lecture, three hours. Presentation of brief therapeutic interventions for adults and children at risk for suicide, depression, conduct problems, and HIV with didactic and experiential techniques.

288. Social and Behavioral Factors of HIV/AIDS: Global Perspective. (4) (Same as Community Health Sciences M284.) Lecture, four hours. Requisites: Community Health Sciences 100 and Epidemiology 100, or prior social sciences courses. Overview of social and behavioral factors which influence both transmission and prevention of HIV/AIDS throughout the world. Letter grading.


290. Los Angeles HIV-Community Colloquium. (1) Lecture, two hours. Examination of emerging scientific HIV-related research, Discussion of policy issues, theories, and designs of HIV-related services and programs and shifting epidemiology of the virus and disease. S/U grading.

292. Functional Neuroanatomy for Neuropsychologists. (1) Lecture, four hours; discussion, one hour. Graduate-level neuroanatomy course. Designed for neuropsychology and radiology postdoctoral fellows and neuroscience graduate students. Human functional anatomy from systems perspective, integrating results from lesion research and functional neuroimaging. Students learn to identify gyri and major sulci on MR images and memorize associated Brodmann’s region. Letter grading.

293. Professional Development: Presentations and Preparation for Academic Interviews. (2) Seminar, two hours. Exposure to range of professional development skills essential to academic career development. Hands-on skills and delivering presentations for various audiences, and preparing research and/or teaching statements for job applications. S/U grading.

294. Essentials of 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. (2) Seminar, two hours; discussion, one hour. Neurobiology and psychopharmacology of drug abuse, as well as epidemiology and prevention. Discussion of pros and cons of various treatment modalities for drug dependence. S/U grading.

295B. (2) Seminar, two hours; discussion, one hour. Drug use patterns and treatment issues in specific populations such as women, adolescents, homeless, multiply diagnosed, as well as different ethnic populations. Exploration of relationships between drug abuse, sexuality, and HIV/AIDS. S/U grading.

295C. (2) Seminar, two hours; discussion, one hour. Theoretical perspectives on drug use and abuse as well as policy and ethical aspects of drug abuse 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 plan to conduct research studies. Coverage of (1) publishing process—submitting manuscripts to journals, selecting appropriate journals, finding space to emphasize in each study of manuscripts, and key points in writing articles for publication, (2) overview of National Institutes of Health (NIH), including organization structure and mission, grant application process, funding opportunities, review process, (3) preparing/writing grants for submission to NIH, including review of components of successful applications, criteria by which applications are judged, and how to emphasize in applications, grant mechanisms specifically designed for new investigators, (5) human subject sections for grant applications and IRB issues, and (6) preparation of budgets (modular and detailed) and budget justification for NIH submissions. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employed at 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.

402. Journal Club. (1) Seminar, two hours; outside study, two hours. Preparation 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.

303. Individual Case Supervision. (1 to 4) Preparatory: 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, internal didactic seminars, discussion of theory, and applications to patient management. S/U or letter grading.

405. Trauma and Sexual Abuse Research Seminar. (2) Seminar, three hours; discussion, one hour. Designed for graduate and medical students and resident physicians interested in learning about biobehavioral trauma research. Introduction to DSM-IV TR diagnostically based criteria for posttraumatic stress disorder (PTSD) as well as biobehavioral mechanisms and application of discussion of child and adult sexual abuse in context of being causative precursors of acute and chronic psychoses of PTSD. Introduction to posttraumatic load, among other biologic variables, within context of physiological markers for PTSD. Review of current modes of treatment, including therapeutic and pharmacological interventions. Discussion of research methods particularly important for trauma research. S/U or letter grading.

407A—407B—407C. Clinical Hypnosis Seminars. (2–2–2) Seminar, two hours; outside study, 90 minutes. Current topics in functional neuroimaging paradigms, and how to interpret results. Lab seminar, to be arranged. Preparation: apprentice personnel employed at 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.

407B. Cultural and historical context for hypnosis; development of traditional trance mechanisms, including techniques in trance induction, deepening, maintenance, and re-alerting; and gaining familiarity with trance experiences. 407B. Fundamentals of trance utilization, including diagnosis, creating safety, and facilitating emergency trance experiences. Intermediate level of understanding techniques for assisting patients in hypnosis situations, and for using hypnosis in clinical situations and with specific populations.

M424. Functional Magnetic Resonance Imaging Journal Club. (2) Seminar, to be arranged. Preparation: apprentice personnel employed at 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.

407C. Application of
student papers. Overall emphasis on magnetic resonance imaging. Example areas include tractography through diffusion tensor imaging, jittered event-related experimental designs, parallel receiver MR imaging, integrated electrophysiological and image acquisition. S/U grading.


431A-431B-431C. Pediatric Neuropsychology: Assessment, Diagnosis, and Treatment Planning. (1–2) Seminar, one hour. Presentation of didactic and developmental disorders, pediatric syndromes, and acquired brain injury in children. Coverage of methods of assessment in children, with focus on neuropsychological testing. Presentation of differential diagnosis and treatment planning. S/U grading. 431A. Developmental disorders, 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.

434. Seminar: Addiction Psychiatry. (1) Seminar, one hour. Cutting-edge research in neuroscience of addictive behavior, using both animal models and human participants. Neuroscience findings regarding multiple addictive substances (e.g., stimulants, alcohol, nicotine) and related behavioral traits (e.g., impulsivity, risky decision making). Some lectures provided by nationally recognized invited guest speakers. S/U grading.

449. Parent Training Intervention Workshop. (2) Lecture, 90 minutes; discussion, one hour. Advanced clinical training in behavioral techniques of assessment and treatment of parent/child problems. Lectures, case presentations, and workshops on various skills necessary.

454. Advanced Topics in Neuropsychology. (1) Seminar, one hour. Coverage of topics in even years that involve interface of neuropsychology with other disciplines, 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 cytogenetics 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. (3) 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.

M480. Educational Advocacy. (2) Same as Law 431B. 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. Assaf, PhD, in Residence (Della Martin Professor of Psychiatry)
Carrie E. Bearden, PhD, in Residence
Robert M. Bilder, PhD, in Residence (Michael Tennenbaum Family Endowed Professor of Creativity Research)
James W. Bisley, PhD
Janet B. Blacher, PhD
Hugh T. Blair, PhD
Aaron P. Blaisdell, PhD
Susan Y. Bookheimer, PhD, in Residence (Joaquin M. Fuster Professor of Cognitive Neuroscience)
Julienne E. Bower, PhD (George F. Solomon Professor of Psychobiology)
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
Mark S. Cohen, PhD, in Residence
Michelle G. Craske, PhD (Joanne and George Miller and Family Endowed Term Professor)
Christine A. Dunkel Schetter, PhD
Naomi L. Eisenberger, PhD
Craig K. Enders, PhD
Christopher J. Evans, PhD, in Residence (Stefan Hatos Endowed Professor of Psychiatry and Biobehavioral Sciences)
Michael S. Faselis, PhD (Staglin Family Professor of Psychology)
Craig R. Fox, PhD
Andrew J. Fuligni, PhD, in Residence
Adriana Galván, PhD
Noah J. Goldstein, MA, PhD
Patricia M. Greenfield, PhD
Martin S. Haselton, PhD
Hal E. Hershfield, PhD (UCLA Anderson Board of Advisors Term Professor of Management)
Keith Holyoak, PhD
Yuen J. Huo, PhD
Michael R. Irwin, MD, in Residence (Norman Cousins Endowed Professor of Psychoneuroimmunology)
Alicia Izquierdo, PhD
Kern L. Johnson, PhD
Scott P. Johnson, PhD
Jaana M. Juvonen, PhD
Benjamin R. Karney, PhD
Philip Kellman, PhD
Barbara Knowlton, PhD
Anna S. Lau, PhD
Chris Hakwan 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
Gregory A. Miller, PhD
Martin M. Monti, PhD
Keith H. Nuechterlein, PhD, in Residence
Efren O. Pérez, PhD
Lara A. Ray, PhD (Shirley M. Hatos Professor)
Steven P. Reise, PhD
Rena L. Repetti, PhD
Dario L. Ringach, PhD
Theodore F. Robles, PhD
Catherine M. Sandhofer, PhD
Stanley J. Schein, MD, 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
Miguel A. Unzueta, PhD
Kate M. Wassum, PhD (Bernice Wenzel and Wendell Jeffrey Term Endowed Professor of Behavioral Neurology)
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
William E. Broen, Jr., PhD
Andrew Christensen, PhD
Charles R. Gallistel, PhD
R. Edward Geiselman, PhD
Overview

Psychology is a subject of considerable interest to most people—we all tend to practice some form of intuitive psychology in an attempt to understand ourselves and the people and groups with whom we interact. The curriculum offered by the Department of Psychology presents psychology as a scientific discipline that employs systematic methods of inquiry to study and explain human and animal behavior—both normal and abnormal—in terms of a variety of underlying variables, including neural, physiological, and cognitive processes; developmental factors and individual differences; and social and interpersonal influences and contexts. According to recent surveys, the Psychology Department is ranked as one of the top departments in the country.

Undergraduate Study

The undergraduate curriculum has been designed to reflect the extensive breadth of psychology—that is, the range of behavioral phenomena studied and the variety of methods and theoretical approaches employed—while allowing students to pursue in greater depth those areas in which they become most interested. Beyond basic core courses, students can take many specialized courses in areas such as behavioral neuroscience, animal behavior, learning and memory, motivation, perception, cognition, measurement, personality, and clinical, social, developmental, community, and health psychology. The curriculum also provides excellent opportunities for research experience—either in the form of laboratory courses or by participation with faculty members and graduate students in a wide variety of research projects.

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 emphases in the areas of behavioral neuroscience, clinical, cognitive, cognitive neuroscience, computational cognition, developmental, health, learning, and behavior, social, 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.

Only one 4-unit 199 course may be taken per term, and only 16 units of course 199 may be applied toward the degree. Only one 199 course may be taken for a letter grade (additional 199 courses may be taken on a P/NP basis). If approved in advance by the Undergraduate Advising Office, 8 units of course 199 may be applied toward the Psychology 195B/196B requirement for the Cognitive Science major and 4 units of course 199B may be applied toward the elective course requirements for the Psychology major.

Psychology Research Opportunity Programs

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 circum-
stances, 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 of 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

Premajor

Students need to file a petition in the Undergraduate Advising Office to declare the Psychology premajor. Psychology premajors 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).

Preparation for the Major

Each of the following required courses must be taken for a letter grade (C or better in Psychology 10, 100A, and 100B, C– or better in the remaining courses): Life Sciences 7A or 15 or Physiological Science 3; Chemistry and Biochemistry 1A–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. 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 premajor 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.

Policies

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

First-Year Students

Students may declare the Psychology premajor 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 other Psychology premajor 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.

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, 116A, 121, 126, 131, 136A, 136B, 151, 186A through 186D; (3) four additional upper-division elective courses (16 units) in psychology.

Policies

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 selected to satisfy major requirements.

Honors Program
Majors intending to continue study at the graduate level are encouraged to apply for the departmental 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. 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 highest 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 four courses from Program in Computing 10A, 10B, 10C, 15, 16A, 20A, 40A, Psychology 20A, 20B, 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.

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

Premajor
Students need to file a petition in the Undergraduate Advising Office to declare the Cognitive Science premajor. They are then identified as Cognitive Science premajors until they (1) satisfy the preparation for the major requirements and (2) file a petition to declare the Cognitive Science major. Questions about the major should be directed to the Undergraduate Advising Office. Students who repeat more than two preparation courses or any preparation course more than once are denied 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.

The Major
After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office. Required: (1) Psychology 115 or (M 117A, M 117B, and M 117C), 120A or 120B, and one course from 124A through 124K; (2) one course from 111, 116A, 116B, 121, 186A through 186D, Computer Science 161; (3) four upper-division elective courses (16 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, 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 188B, Mathematics 110A through 171, Music Industry M103, Neuroscience 102, M145, C177, 180, 181, 182, Philosophy 124 through 137, 138, 154, C154B, 170, 172, 174, 180, 181, Psychiatry M182, Statistics 100A, 100B, 100C, 101B, 101C, 115, C161, C180; and (4) in the junior or senior year, two capstone terms of Psychology 195B or 196B (may be fulfilled by taking any two courses from 195B or 196B or 196B/194C, provided content is approved by the Undergraduate Advising Office).

Policies
Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and two upper-division cognitive science electives. All three courses must be completed to receive cognitive science elective credit. Students must have a 2.0 grade-point average in all upper-division courses selected to satisfy major requirements. With the exception of Psychology 195B and 196B, each course must be taken for a letter grade.
Learning Outcomes:

- 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
- Ability to relate work in literature in meaningful ways, explaining the motivation for the study and the interpretation of the results
- 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
- Ability to analyze the behavior of neurons in circuits and predict how other neurons in the circuit will react when other neurons are depolarized or hyperpolarized

Premajor

Students need to file a petition in the Undergraduate Advising Office to declare the Psychobiology premajor. They are then identified as Psychobiology premajors until they (1) satisfy the preparation for the major requirements and (2) file a petition to declare the Psychobiology major.

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, and 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, or 4AL, or 5A, 5B, and 5C.

Also required are Psychology 10, 100A, 100B.

Policies

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. Student must complete all preparation for the major courses by the end of the summer quarter of their third year to be eligible to petition to declare the Psychobiology major.

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 premajor 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.

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the 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; and 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.

The Major

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

Required: (1) Ecology and Evolutionary Biology 100 or 129 or Psychology 118, and Psychology 110, 115 (or M117A, M117B, and M117C), 116 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, 150, 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 C185A, Molecular Cell, and Developmental Biology 100, 104AL, 138, M140, CM156, Neuroscience 102, Physiological Science C130, C144, 146, 147, 166, 173.

Policies

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. 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. 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 highest 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 four courses from Program in Computing 10A, 10B, 10C, 15, 16A, 20A, 40A, Psychology 20A, 20B, 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.

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, 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, or by phone at 310-825-2730, 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 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, 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.

For questions about additional course requirements for the minor, contact a counselor in the Undergraduate Advising Office, 310-825-2730.

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, or by phone at 310-825-2730, 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) biological basis of cognition cluster—Linguistics C135, Music Industry M103, Neuroscience 102, M145, C177, 180, 181, 182, Psychology 101, 112E, 115, 116A or 116B, M117C (or Molecular, Cell, and Developmental Biology M175C or Neuroscience M101C or Psychological Science M180C), 119C, 119F, M119L, M119N, 137A, 137G, 161, 166C; (2) human cognition cluster—Anthropology 124Q, 136A, Communication 129, Psychology 129A, 129B, 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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 majors. May be repeated for credit with prior permission of the Department. P/NP grading.

15. Introductory Psychology. (4) Lecture, three hours. Designed for nonmajors. Survey of genetic, evolutionary, physiological, psychological, and experiential factors affecting behavior. Using comparative approach where appropriate, emphasis on relevance of biological mechanisms to understanding of humans and their interaction with their environment. P/NP or letter grading.

19. First 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 facets of daily life. Supervised by the Freshman Seminar program. P/NP or letter grading.

20A. MATLAB Programming for Behavioral Sciences. (4, Lec.) 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, Lab.) 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 modeling, and efficient MATLAB coding. Active learning during class and for homework required. P/NP or letter grading.

30. Web Programming for Psychology. (4) Lecture, one hour; laboratory, three hours. Introduction to core technologies of Internet, with focus on applications that collect and analyze data. Server side programming includes Perl and MYSQL databases. Client side programming includes HTML and JavaScript. P/NP or letter grading.

85. Introduction to Cognitive Science. (4) Lecture, three hours. Exploration of computer metaphor of mind as an information-processing system, focusing especially on perception, knowledge representation, and thought based on research in cognitive psychology, neuropsychology, and artificial intelligence. Many examples from visual information processing.

88A. Lower-Division Seminar: Stress, Adaptation, and Coping. (1) Seminar, three hours. Enforced requisite: course 10. Limited to freshmen. Psychological and physiological processes related to stress and strains of daily living and potential relation of these processes to disease states. Examination of multifaceted nature of coping with stressors and exploration of strategies for stress management. May be repeated for credit. P/NP or letter grading.

89B. 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 15 students. Honors Contract. May be repeated for credit. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

101. General Psychology Laboratory. (4) Lecture, three hours; laboratory, three hours. Requisites: courses 10, 100A, 110B. Designed for majors and nonmajors in psychology. Laboratory and lecture topics include experimental and nonexperimental research methods, statistical design and analysis as applied to a broad range of basic and applied research issues. P/NP or letter grading.


110. Fundamentals of Learning. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A, 110B. Designed for juniors/seniors. Experimental findings on animal and human conditioning; retention and transfer of training; relation of learning and motivation. Consideration of topics such as imagery, motivation, and drug addiction. Evaluation of evidence obtained in laboratory studies conducted with animals. 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, nine hours; discussion, three hours. Requisites: courses 10, 100A, 100B, 110. Designed for majors in experimental psychology. Consideration of topics as related to psychology, animal behavior, and social behavior. P/NP or letter grading.

112B. Psychobiology of Fear and Anxiety. (4) Lecture, three hours; discussion, one hour. Requisite: course 110. Recommended: course 115. Designed for juniors/seniors. Presentation of biological and behavioral approaches to fear and anxiety, taken from laboratory research. In addition to relevant research, 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. Presentation of 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, Lab.) Lecture, 90 minutes; discussion, 45 minutes. Requisites: courses 110, 110A, 110B. 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.

112E. Decision Making and Brain. (4) Lecture, three hours. Requisites: courses 10, 100A, 110B. Designed for juniors/seniors. Survey of neural mechanisms of value judgment and decision making and their relationship to classical economics. Discussion of theoretical models of valuation and decision making from economics and the application to psychological and neuroscience studies of learning and decision making. P/NP or letter grading.

115. Principles of Behavioral Neuroscience. (4) Lecture, three hours; discussion, one hour. Requisites: course 100A, Life Sciences 2 or 7A or 15. Not open to students who have credit for Neuroscience M101A or Neuroscience M101A or Biological Science M180A. Designed for majors. Nervous system anatomy, physiology, and central nervous system function, and their relationship to behavior. P/NP or letter grading.

116A. Behavioral Neuroscience Laboratory. (4) Formerly numbered 116E. Lecture, one hour; laboratory, three hours. Requisites: courses 10, 100A, 100B, 110. Not open for credit to students with credit for 116B. Designed for Psychology and Psychology majors. Laboratory experience with various topics in behavioral neuroscience. P/NP or letter grading.

116B. Human Neurophysiology Laboratory. (4) Laboratory, four hours. Requisites: courses 10, 100A, 100B, 110. Not open for credit to students with credit for 116A. Focus on human neural function in health and disease. Consideration of cases and investigations 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, assessment in field of neuropsychology, and human neuroanatomy. Addresses disorders of nervous system that have profound impacts on human functioning 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 and Cell, and Developmental Biology M175A, Neurobiology and Behavior M175A, Molecular and Cell, and Developmental Biology M180A. Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14A or 30A (14A can be taken concurrently). Life Sciences 7C, Physics 1B or 1BH or 52 or 58B. 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 systems: how neurons process 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: Chemistry 14A or 30A (14A can be taken concurrently), Life Sciences 7C, Physics 1B or 1BH or 52 or 58B. 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 systems: how neurons process complex information and control movement. P/NP or letter grading.
ology of supramolecular mechanisms: synaptic transmission, axonal transport, cytoskeleton, and muscle. Classical experiments and modern molecular approaches in developmental neurobiology. P/NP or letter grading.


119F. Neuroscience in Art and Culture. (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 and behavior, motor patterns, emotion, and motivation, with emphasis on operation of these processes in well-defined neural circuits in animals and humans. P/NP or letter grading.

119L. 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, based on empirical studies that use behavioral and neuroimaging techniques) in effects of types of brain damage, in physiological responses, and in psychopathological states. Discussion of evolutionary approaches to faces, as well as relationships between genetic mutations affecting both brain and facial appearance. P/NP or letter grading.

119J. 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 studying what it does well and understanding neuroscience of why brain is poorly suited to perform some tasks such as numerical calculations, memorizing lists and names, and making unbiased decisions. Topics include memory (types of memory, false memories, memory and 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 evolution. Basic neuroscience, evolutionary neurobiology, plasticity, psychological, plasticity, neural basis of learning and memory, and some computational neuroscience. P/NP or letter grading.

119K. Neurophilosophy. (4) Lecture, three hours. Requisite: course 115. Introduction to philosophy of mind has relied on introspection and thought experiments to explore consciousness, self, and free will. Field of neurophilosophy employs findings and methods of neuroscience to investigate the 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 demonstrations of how alterations in brain functioning due to injury, psychotropic drugs, and dreaming result in alterations in these phenomena. P/NP or letter grading.


119N. Visual System. (4) Same as Neuroscience M119N.) Lecture, three hours. Requisite: course 115 or Neuroscience M101A or Psychological Science 111A. Ability to image and analyze visual world is truly remarkable feat. Coverage of anatomy and physiology of sensory neurons in primary visual cortex through lectures, extensive reading, and discussions. P/NP or letter grading.

119Q. Psychobiology of Sleep and Dreams. (4) Lecture, three hours. Requisite: course 115. Designed for seniors/juniors. Study of measurement of sleep, effects of sleep deprivation, sleep in psychiatric disorders, comparison of sleep in mammal species and sleep in nonmammal species, circadian control of sleep, development and aging of sleep, brainstem mechanisms of sleep and wakefulness, sleep disorders, human sleep disorders, and problems of dreams. P/NP or letter grading.

119R. Emerging Topics in Neuroscience. (4) Lecture, two hours; discussion, one hour. Requisite: course 115. Emerging advanced lecture topics in neuroscience given by visiting speakers, with additional lectures given by invited and student presenters. Reading of published scientific articles. P/NP or letter grading.

119S. Psychobiology of Sleep and Dreams. (4) Lecture, three hours. Requisite: course 115. Designed for seniors/juniors. Study of measurement of sleep, effects of sleep deprivation, sleep in psychiatric disorders, comparison of sleep in mammal species and sleep in nonmammal species, circadian control of sleep, development and aging of sleep, brainstem mechanisms of sleep and waking, sleep disorders, human sleep disorders, and problems of dreams. P/NP or letter grading.


119V. Brain and Art. (4) Lecture, three hours. Requisite: course 115. Multiple forms of art express unique- ness 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 Neuroscience of Aging. (4) (Same as Gerontology M119X.) Lecture, three hours. Designed for junior/senior majors. Basic mechanisms of aging process and its terminal phase, death, have been increasingly studied in recent years. Exploration of what is important, achieve balance, and get better with age. Topics include happiness, memory, brain training, use of emerging technology, wisdom, humor, habits, retirement, and what constitutes successful aging. P/NP or letter grading.

120A. Cognitive Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A, 100B, 120A or 120B. Designed for seniors/juniors. Study of information processing about perception and current literature on mechanisms and perceptual processes. Perception of objects, spaces, surface, motion, and events. Connections between information, computations, and bio-mechanisms in in the auditory and other systems. P/NP or letter grading.

120B. Sensation and Perception. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A, 100B, 120A or 120B. Designed for seniors/juniors. Acquisition of information about perception and sensory mechanisms and perceptual processes. Perception of objects, spaces, surface, motion, and events. Connections between information, computations, and bio-mechanisms in the auditory and other systems. P/NP or letter grading.

121. Laboratory in Cognitive Psychology. (4) Laboratory, four hours. Requisites: courses 10, 100A, 100B, 120A or 120B. Designed for Psychology and Cognitive Science majors. Laboratory experience with methods and phenomena from research on human perception, memory, and cognition. P/NP or letter grading.


124C. Human Memory. (4) Lecture, two hours; discussion, one hour. Requisite: course 120A or 120B. Designed for seniors/juniors. Analysis of recent research on basic processes and structural components that comprise the human memory system. Discussion topics include practical implications of such research for instruction, marketing, and witness testimony. P/NP or letter grading.

124D. Cognition and Successful Aging. (4) Lecture, three hours. Requisites: courses 120A or 120B. Designed for seniors/juniors. Analysis of recent studies of cognitive neuroscience of consciousness, with focus on modern theories of conscious perception, P/NP or letter grading.

124E. Thinking. (4) Lecture, three hours. Requisite: course 120A or 120B. Analysis of experimental studies of cognitive neuroscience of consciousness, with focus on modern theories of conscious perception, P/NP or letter grading.

124F. Perception, Learning, and Learning Technology. (4) Seminar, three hours. Requisite: course 120A or 120B. Aspects of perception and cognition as they relate to learning and potential for learning technology. Basic knowledge about visual information processing, perceptual learning, knowledge representation, pattern recognition, attention, memory, and expertise, as well as research on learning, technology, and applications of perceptual and cognitive concepts in specific domains of study. Designed for junior/senior psychology majors. Survey of emerging technology in teaching and learning in mathematics. P/NP or letter grading.

124G. Ethical, Legal, and Societal Implications of Cognitive Neuroscience. (4) Lecture, three hours. Requisite: course 120A or 120B. Designed for seniors/juniors. Discussion of current and potential use of neuroimaging data in legal system as means to assess memories, truthfulness, culpability, and probability of future criminal behavior. Consideration of per-
126. Clinical Psychology Laboratory. (4) Laboratory. Topics vary. Prerequisites: courses 10, 100A, 100B, and 127A or 127B or 127C. Designed for departmental majors. Methods, designs, and issues in conduct of clinical psychology research. Students develop and conduct research. Content varies by instructor, with a concentration on one of following: schizophrenia, mood disorders, anxiety disorders, childhood disorders, psychophysiological methods, observational methods with couples and families. P/N or letter grading.

127A. Abnormal Psychology. (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 (e.g., depression, anxiety, 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/N 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 for drug treatments. Emphasis on research and theories on clinical neuropsychological and behavioral genetics as scientific modalities to understand mood disorders, substance use disorders, psychosis, and others. P/N or letter grading.

127C. Abnormal Psychology: Developmental Perspectives. (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 abnormalities in development from infancy through adolescence and early adulthood. Clinical disorders include behavioral disorders, depression/anxiety, alcohol/substance disorders, eating disorders, and autism spectrum disorder. P/N or letter grading.

129C. Culture and Mental Health. (4) Lecture, two hours; discussion, one hour. Requisites: courses 10, 100A. Introduction to study of culture and human behavior with the development of culture and mental health in particular. Emphasis on cultural groups that comprise major U.S. ethnic groups (e.g., African Americans, Latinos/Chicanos, Asian Americans, and American Indians), or other cultural groups. P/N or letter grading.


129F. Clinical Psychology of Childhood and Adolescence. (4) Lecture, two hours; discussion, one hour. Requisite: course 127A or 127B or 127C. Survey of child and adolescent psychopathology and psychotherapy from a developmental perspective. Covers includes such conditions as anxiety disorders, depression, conduct and attention problems, eating disorders, and autism, with information on prevalence, causes, common treatments and their effects. P/N or letter grading.

130. Developmental Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Designed for seniors/juniors. Elaboration of developmental processes with an emotional growth from birth to adolescence. P/N or letter grading.

131. Research in Developmental Psychology. (4) Discussion, one hour; laboratory, three hours. Requisites: courses 127A, 127B, and 130. 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/N or letter grading.

132A. Learning Problems, Schooling Problems: Policy and Practice. (4) Lecture, three hours. Designed for juniors/seniors. Exploration of different orientational perspectives to problems to encompass assessment and intervention approaches and psychological impact of such approaches. Topics include interaction of learner and environment, sociopolitical nature of classroom, psychological impact of schooling, grades, and evaluations, process versus goal focus in learning. P/N or letter grading.

132B. Mental Health in Schools: Policy and Practice. (4) Lecture, three hours. Requisites: courses 10, 100A. Examination of cognitive, social, physical, and physiological development of the adolescent. P/N 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/N 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 attention, perception, language, thinking, and problem solving, and acquisition of concepts and domain-specific language. P/N 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/N or letter grading.

133D. Social and Personality Development. (4) Lecture, three hours. Requisites: 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/N or letter grading.

133E. Perceptual Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Topics include origins and development of human perceptual abilities, origins of knowledge about functionally important aspects of the environment, ecological and computational issues in development, and theory about initial perceptual capacities, and some sensory foundations. P/N 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 education of the disadvantaged. P/N or letter grading.

135G. 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/N or letter grading.

135H. Applied Developmental Psychology. (4) Lecture, three hours. Requisites: courses 10, 100A. Application of developmental psychology to issues pertaining to improving well-being of children and their families. Topics include quality of child care, patterns and ranges of normal child behaviors, developmental disabilities, safety, legal, and public policy issues, child-rearing practices. P/N or letter grading.

134A. Applied Developmental Psychology: Infant/Toddler Care and Education. (4) Lecture, three hours. Designed for Applied Developmental Psychology minors. Coverage of children zero to three years old. Topics include physical, cognitive, social, and emotional development, developmentally appropriate practices, child care quality, role of educator/caregiver, and other related issues. Letter grading.

134B. Applied Developmental Psychology: Pre-school/School-Age Care and Education. (4) Lecture, three hours. Designed for Applied Developmental Psychology minors. Coverage of children three to eight years old. Topics include physical, cognitive, social, and emotional development, developmentally appropriate practices, child care quality, role of educator/caregiver, and other related issues. Letter grading.

134C. Advanced Applied Developmental Psychology. (4) Seminar, one hour; fieldwork, eight hours. Requisites: courses 134A, 134B, 134D, 134E. Designed for Applied Developmental Psychology minors. Continuation of fieldwork in advanced applications of developmental psychology to support and illustrate, in applied setting, theories and research findings presented in lecture. P/N or letter grading.

134D. Fieldwork in Applied Developmental Psychology. (4) Fieldwork, 86 hours per term. Enforced corequisite: course 134A. Designed for Applied Developmental Psychology minors. Fieldwork in applications of developmental psychology to support and illustrate, in applied setting, theories and research findings presented in lecture. P/N or letter grading.

134E. Child Care and Education. (4) Lecture, three hours. Requisites: 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 second year of life, including cross-cultural application of this knowledge to various populations. P/N or letter grading.

134G. Early Childhood Curriculum. (4) Lecture, three hours. Requisites: 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 child-care settings. Topics include multiculturalism, antibias curriculum, and special needs adaptations. P/N or letter grading.

134I. Child, Family, and Community. (4) Lecture, three hours. Requisites: course 10, one course from 130 or 133B through 133I, one statistics course. Exploration 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/N or letter grading.

134J. 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 of transition to parenthood, and examination of parenting across developmental stages. Examination of how parenting and parent-child relationship are affected by family dynamics and contextual factors. Study of effective child socialization techniques and their theoretical and empirical foundations to meet children’s developmental needs; build positive and meaningful, respectful relationships with children; and provide positive guidance to promote self-regulation, competence, and socially responsible behavior. P/N or letter grading.

134K. Effects of Early Adversity and Trauma. (4) Lecture, three hours. Examination of evidence of disruptive impact of early adversity. Study offers insights into causal mechanisms that link early adversity to later impairments in learning, behavior, and both physical and psychological well-being. Re-
view 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.


136A. Social Psychology Laboratory. (4) Lecture, one hour; laboratory, two hours. Requisite: course 10, 100A, 100B, 135. Designed for Psychology majors. Introduction to research designs and methods used to test social psychological hypotheses, including experiments, observation, content analysis, and/or questionnaires. P/ NP or letter grading.

136B. Nonexperimental Methods in Social Psychology. (4) Lecture, two hours; laboratory, two hours. Requisite: courses 10, 100A, 100B, 135. Designed for Psychology majors. Research experience with nonexperimental methods for study of social attitudes or behavior, including fieldwork with survey research, naturalistic observation, or questionnaires. P/ NP or letter grading.

137A. Neurosociology of Social Perception. (4) Lecture, three hours. Requisite: courses 10, 100A, 100B, 135. Limited to juniors/seniors. Integration of cognitive neuroscience, social psychology, and sensory perception research to explore how social information is perceived and how social factors shape perception of the world around us. Emphasis on neural mechanisms underlying these phenomena. P/ NP or letter grading.

M137B. Nonverbal Communication and Body Language. (4) (Same as Communication M113.) Lecture, three hours. Examination of how various forms of nonverbal communication convey meaningful information to perceivers, with production and perception of multiple communication formats (e.g., affect expression of face and body, gesture, and kinesics), with strong emphasis on body language. Readings from a variety of related fields. P/ NP or letter grading.

137C. Intimate Relationships. (4) Lecture, three hours. Requisite: courses 10, 100A. Limited to juniors/seniors. Introduction to how social scientists think about and study intimate relationships, with emphasis on understanding how relationships change over time. Topics include attraction, relationship formation, conflict resolution, social support, sex, role of individual differences and external circumstances, P/ NP or letter grading.

137D. Psychology of Diversity. (4) Lecture, three hours. Requisite: course 10. Designed for juniors/seniors. Examination of how culture, socioeconomic class, ethnicity, gender, and other group differences are created, perceived, and maintained. Emphasis on how scientific evidence informs approaches to contemporary problems, including management of diverse workforce, integration of immigration, racial tensions, and health/educational disparities. P/ NP or letter grading.

M137E. Work Behavior of Women and Men. (4) (Same as Gender Studies M137E.) Lecture, two and one half hours. Requisite: course 10 or Gender Studies 10. Designed for seniors. Examination of work behavior of women and men. Topics include antecedents of career choice, job findings, leadership, performance evaluation, and discrimination; job satisfaction, and interdependence of work and family roles. P/ NP or letter grading.

M137F. Work Behavior of Women and Men. (4) (Same as Gender Studies M137E.) Lecture, two and one half hours. Requisite: course 10 or Gender Studies 10. Designed for seniors. Examination of work behavior of women and men. Topics include antecedents of career choice, job findings, leadership, performance evaluation, and discrimination; job satisfaction, and interdependence of work and family roles. P/ NP or letter grading.

137F. Introduction to Cultural Psychology. (4) Lecture, three hours. Examination of sociocultural sources of diversity in psychological self, emotion, motivation, development, and relationships. Broad survey of how ideas and practices associated with various regions of world, social class, race/ethnicity, gender, and religion construct, maintain, and change psychological experiences and tendencies. Focus on theory and research in field of cultural psychology. Discussions on how material covered impacts life and real-world social issues. P/ NP or letter grading.

137I. Social Influence. (4) Lecture, three hours. Requisite: course 10. Study of theory and research that addresses influence and persuasion from social psychology perspective. Students will be given opportunity to review theory and empirical research on conformity, compliance, and obedience. Covers attitudes and their measurement, factors that make persuasive messages effective in changing attitudes, social influence online, cross-cultural influence, and resisting persuasion and influence attempts. Application of findings from social influence literature to understanding influence processes in various social contexts. P/ NP or letter grading.


137K. Psychology of Emotion. (4) Lecture, three hours. Designed for junior/senior psychology majors. Broad overview of scientific study of human emotion. Covers topics such as history of emotion research, current dominant models of emotion, purpose of facial expressions, experience of emotions in our closest social relationships, how our emotions, whether emotions can make us sick, and what it means to be happy. Exploration of range of perspectives in psychology, ranging from social, cultural, developmental, and clinical psychology. Consideration also of cognitive and behavioral neuroscience. P/ NP or letter grading.

M138. Electoral Politics: Political Psychology. (4) (Same as Political Science M141A.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 10. Designed for juniors/seniors. Examination of political behavior, political socialization, personality and politics. Covers basic-experimental and sociological perspectives of public opinion on the issue.

M139. Perspectives on Autism and Neurodiversity. (4) (Same as Disability Studies M139.) Seminar, three and one half hours. Genealogy of autism as diagnostic category and cultural phenomenon from its historical roots as new, rare, and obscure condition in early 1940s to its current contested status as minority identity and/or global epidemic. Examination of material sourced from various fields and disciplines invested in autism, including psychology, neuroscience, arts and humanities, popular media, anthropology, activism, and critical autism studies. Students encounter and analyze multiple perspectives on autism and put them in conversation with one another. Attention paid to how people on spectrum define, explain, and represent their own experiences of autism and discussion of various ramifications of these framings are in context of autism intervention strategy and disability policy today. Letter grading.

M140. Introduction to Study of Aging. (4) (Same as Social Welfare M140.) Lecture, three hours. Designed for juniors/seniors. Major features of human aging—biological, social, psychological, and humanistic. Introduction to information on range of influences on aging to prepare students for subsequent specialization in psychology. P/ NP or letter grading.

142H. Advanced Statistical Methods in Psychology (Honors). (4) Lecture, three hours; laboratory, two hours. Requisites: courses 100A, 100B. Survey of statistical techniques used in psychology, education, and behavioral and social sciences: correlation, regression, multiple regression, and ANOVA. P/ NP 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, Bi- sexual, Transgender, and Queer Studies M114. 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 about lesbians in sociocultural context. P/ NP or letter grading.

M149. Language Development and Socialization. (4) (Same as Anthropology M152P.) Lecture, three hours. Requisite: one course from social psychology, educational psychology, Gender Studies M147A, or Psychology 137J. 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 development over childhood, across communities of practice, and across different ethnic and socioeconomic groups. Bridges work from anthropology, psychology, linguistics, and cognitive science to cross-cultural perspectives on child development and wide range of Methodological approaches. Examination of ways in which language development and socialization interface with culture, morality, language, education, and cognition. P/ NP 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 psychological concepts and research, psychological perspective on these problems, and how psychological perspective might be enlarged and extended in medical area. P/ NP 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 psychological research and experimental, and nonexperimental methods. Examples and projects from health psychology. P/ NP or letter grading.

152. Mind-Body Interactions and Health. (4) Lecture, three hours. Requisite: course 10. Areas of health, illness, treatment, and delivery of treatment that can be elucidated by psychological concepts and research, psychological perspective on these problems, and how psychological perspective might be enlarged and extended in medical area. P/ NP or letter grading.

161. Behavior and Brain Development. (4) Lecture, three hours. Requisite: 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/ NP or letter grading.

162. Psychology of Addiction. (4) Lecture, three hours; discussion, one hour (when scheduled). Survey of topics covering psychological and neuropsychological theories of addiction, pharmacological effects of drugs and abuse, epidemiology, treatment, diagnosis, and treatment. P/ NP or letter grading.

M163. Death, Suicide, and Trauma. (4) (Same as Sociology M138.) Lecture, three hours; discussion, one hour. Sociological analysis of incidence of violent death. Suicide is eighth leading cause of death in U.S. and third leading cause for young people aged 15 to
Both kinds of violent deaths are often dismissed as extreme psychopathology, reflecting individual mental health issues. Sociologists argue that suicide and homicide are social facts. Suicide and homicide do not occur randomly in society but are stratified according to social factors such as age, gender, race, sexual orientation, and class. Analysis of strength of this sociological argument and evaluation of explanatory potential of different theories to make sense of violent death requires attention to the biological and medicolegal system to determine suicide and solve homicides. Review of historic and contemporary studies to examine how research and conceptualizations of suicide have changed, as well as social responses to these phenomena. P/NP 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 adolescence influence 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.

M155. Psychology of Gender. (4) (Same as Gender Studies M165.) Lecture, three hours. Consideration of psychological and social factors that influence how men and women think, feel, and behave. Examination of how gender socialization shapes individual and group behavior. P/NP or letter grading.

M166. Neurobiology of Bias and Discrimination. (4) (Same as Neuroscience M187 and Psychological Science M160B.) Lecture, four hours. Limited to junior/senior neuroscience, psychological 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. Designed for junior/senior majors. 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 sources from age 18, two 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 trends and forces have impact on organizations today, and what are best ways to bring about change in organization and/or group. P/NP or letter grading.

M172. Afro-American Woman in U.S. (4) (Same as African American Studies M172 and Gender Studies M172.) Lecture, two and one half hours. Designed for juniors/seniors. Impact of social, psychological, political, and economic factors on black women. Consideration of historical and current research on contemporary and historical interactions of African-American women as members of large society and as members of their biological and ethnic group. P/NP or letter grading.

M174. Psychology of 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 (e.g., social class, family 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 as they relate to racial and ethnic minority populations and to teach students to integrate concepts of culture and health disparities into other social, biological, political, psychological, genetic, and clinical health interventions. 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.

M176SL. Addressing Social Determinants in Racial/Ethnic Minority Communities to Reduce and Prevent Health Disparities and Promote Health and Wellness (Engagement and Social Change M175SLS) Seminar, two hours; fieldwork, 10 hours. Examination of how addressing social determinants in racial/ethnic minority communities can alleviate or eliminate physical and mental health disparities. Currently in racial and ethnic minority communities, health status of individuals can be a 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 individuals, while taking into account access to healthcare with little in way of changing risk environment. Designed to identify and provide opportunities to understand how to address social determinants related to health and to attain health equity for racial and ethnic minority neighborhoods and communities and to experience how to use social determinants literature in service of collaborative activities with community organizations. 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 counseling; comparison of alternative models of counseling processes. 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 Relations Science. (1–1–1) Seminar, one hour. Introduction to research foundation of relationship science (e.g., leading theories, common measures and research designs). Additional topics may be covered; comparison of alternative models of counseling processes. Emphasis on counseling approaches in community mental health areas such as drug abuse, suicide prevention, and crisis intervention. P/NP or letter grading.

184A-184B. Psychology Research Opportunity Program Seminar (PROPS). Three hours. Designed to bring together Psychology 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 Practicum in Psychology. (3) Laboratory, seven hours. Corequisite: course C194D. Limited to juniors/seniors. Practical applications of psychological research 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 major. 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.

186A. Cognitive Science Laboratory: Introduction to Theory and Simulation. (4) Laboratory, four hours. Requisites: courses 10, 85, 100A, 100B, Program in Cognitive Science M170A or 170B, or Program in Psychology M176SL or 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., attention, 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: Psychophysical Theories and Methods. (4) Lecture, two hours; laboratory, 10 hours. 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) Laboratory, four hours. Enforced requisite: courses 10, 100A, 100B. Limited to departmental majors. Introduction to study of brain with functional resonance 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 majors. Departmentally supervised experimental or temporary courses on topics of psychological interest, such as those taught by visiting faculty. Consult Schedule of Classes for topics and instructors. 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 supervised specialized seminars 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.

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. Designed to provide background and 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 requisite: course 188SA. 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.

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 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. Design- ed 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 course instructor. May not be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
190. Research Colloquium in Psychology. (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 supervisor and a faculty member. May be repeated for credit. P/NP grading.

191. Variable Topics Research Seminars: Psychology. (1) Seminar, one hour. Limited to juniors/seniors. Research seminar on selected topics in psychology. Reading, development of innovative programs under guidance of faculty members and teaching assistants. 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. P/NP grading.

191AH-191BH-191CH. Departmental Honors Reading, discussion, and development of culminating Research seminar on selected topics in psychology. May be repeated for credit. P/NP grading.

191AH-191BH-191CH. Departmental Honors Research Seminars. (2-2-2) Seminar, two hours. Enforced corequisite: course 191AH. Course 191AH is requisite to 191BH, which is requisite to 191CH. Limited to psychology honors program students. Opportunity for students assisting in preparation of materials and development of approaches to learning through group discussion, presentation, and papers. Research fields and topics vary by instructor. 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.

192. Education Practices in Psychology. (4) Seminar, three hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to assist in courses related to psychology. Students assist in preparation of materials and development of approaches to learning through group discussion, presentation, and papers. 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. Limited to undergraduate students. Discussion of readings selected from current literature of particular field or field of interest attended at and with-up of speakers series. May be repeated for credit. P/NP grading.

194A. Internship Seminars: Psychology. (2) Seminar, two hours. Corequisite: course 195A. Study of research methods and current literature in field of or 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 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 196B (3-unit option). Limited to juniors/seniors who are part of research group. Discussion of research methods and current literature in field of or 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 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.

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 of or 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 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.

194D. Research Group Seminars: Practicum. (1) Seminar, one hour. Corequisite: course 185. Designed for undergraduate students who are part of research group that meets with graduate students. Discussion of research methods and current literature in field of or 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 any 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 in applications of psychology in supervised settings. 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 supervisor required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

195B. Corporate Internships in Cognitive Science. (3 to 4) Tutorial, eight hours. Corequisite: course 194B. Limited to juniors/senior Cognitive Science majors. Practical applications of cognitive science through internship experience in supervised settings. 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.

195A. Senior Project in Psychology. (4) Tutorial, eight hours. Corequisite: course 194B. Limited to seniors/juniors. Supervised individual research project under direct supervision of faculty mentor. Culminating paper required. Only one 4- unit 199 course may be taken per term. May be taken for credit or letter grading. Credit required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. Letter grading.

195B. Senior Project in Psychology. (4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of psychology faculty mentor. Culminating paper required. Only one 4- unit 199 course may be taken per term. May be taken for credit or letter grading. Credit required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. Letter grading.

199A. Senior Project in Psychology. (4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of psychology faculty mentor. Culminating paper required. Only one 4- unit 199 course may be taken per term. May be taken for credit or letter grading. Credit required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. Letter grading.

Graduate Courses

200A. Pavlovian Processes. (4) Lecture, five 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 action, motivational processes, and goal selection in nonhuman animals. S/U or letter grading.


201. Current Issues in Learning and Behavior. (1) Lecture, 50 minutes. Designed for graduate students. Required of learning and behavior students a minimum of four times (entire first year and winter of second year). Presentation of papers of current interest in learning, behavior, or applied behavioral analyses by experts in the field. Evaluation of their significance and methodology in detail. May be repeated for credit. S/U grading.

202A. Research in Learning and Behavior. (2) Forum in which graduate students discuss the literature and methodological, analytical, and interpretational issues related to specific topics of research in learning and behavior. S/U grading.

204A. Basic Motivational Processes. (4) Lecture, three hours. Designed for graduate students. Analysis, using behavioral systems approach, of basic motivated behavior such as feeding, drinking, foraging, reproduction. Same approach also applied to phenomena such as acquired motivation, reinforcement, and drug addiction. Historical survey of behavioral analyses of motivation and goal-directed behavior. S/U grading.

204B. Theories of Learning. (4) Discussion, three hours. Requisite: course 200A. Critical discussion and in-depth analysis of current major theoretical approaches to associative learning, with emphasis on recent experimental analyses of conditioning phenomena.

204C. Evaluative Processes. (4) Lecture, three hours. Designed for graduate psychology students. Lectures and discussion on current research in application of learning principles to clinical and social problems such as alcohol and drug abuse, aggression, fear management, mental retardation, behavioral medi- cation, and schizophrenia. S/U or letter grading.

204D. Fear and Anxiety. (4) Lecture, three hours. Preparation: graduate training. Presentation of theoretical and empirical advances, from biological and behavioral perspectives, in the area of fear and anxiety. Integration of animal and human research.

205A. Cortical Plasticity and Perceptual Learning. (2) Lecture, two hours. Required of learning and behavior students. Lecture and discussion on research on cellular and molecular mechanisms of cortical plasticity. S/U grading.

205B. Human Neurophysiology. (2) Lecture, three hours. Designed for graduate students. Examination of higher cognitive processes in terms of neural mech-
205C. Neuropsychology of Motor and Cognitive Function. (2) Lecture, three hours. Designed for graduate students. Detailed analysis of molecules involved in interneuronal communication processes (i.e., neurotransmitters, neuromodulators, neurotrophic agents). Discussion of their roles in normal brain physiology, followed by detailed analyses of their perturbations in various disease states. Particular emphasis on current and past thinking about Alzheimer’s disease, Parkinsonism, Huntington’s disease, and Down’s syndrome dementia. Letter grading.

20SD. Clinical Psychopharmacology. (2) Lecture, three hours. Designed for graduate students. General principles of brain neurotransmitters, including synthesis, cell bodies and pathways, and receptor subtypes. General principles of drug administration and pharmacokinetics. Major classes of psychoactive drugs, animal models, and atypical compounds. Letter grading.

205E. Neural Basis of Reward and Value. (2) Five-week course. Lecture, three hours. Designed for graduate students. Subjects include 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 the field, followed by class discussion. Letter grading.

20SF. 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.

205G. Behavior Genetics. (2) Lecture, three hours. Designed for graduate students. In-depth analysis of field of behavior genetics, including methods for determining genetic and environmental influences and for locating and characterizing genes impacting these traits, as well as current knowledge of genetic contributions to cognition and behavior and disorders thereof. Letter grading.

205I. Attention. (2) Lecture, three hours. Designed for graduate students. Review of cognitive neuroscience of attention from classical psychological models to modern computational models. Focus on perception with brief coverage of attention in action and decision. Letter grading.


20SK. Vision Neurobiology. (2) Lecture, three hours. Designed for graduate students. Exploration of anatomy, physiology, and computation in visual system, focusing on retina, visual cortex, and overall performance. Letter grading.

20SL. Cognitive Neuroscience. (2) Lecture, three hours. Designed for graduate students. Overview of neural basis of higher cognitive functions, integrating anatomical, physiological, and behavioral approaches and incorporating clinical and experimental data. Systems covered include attention, perception, memory, language, and hemispheric specialization. Letter grading.

20SM. Neuropsychology of Perception. (2) Lecture, three hours (five weeks). Designed for graduate students. Examination of neural substrates of high-level visual processing. Topics include agnosias and characteristics of electrophysiological responses recorded in primate temporal lobe. Discussion of issues regarding neural representation of knowledge. Letter grading.

20SN. 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 reality—and theories that have been used to describe its role. Discussion of papers describing studies that led to discovery of prediction error, its application to temporal difference reinforcement learning (TDRL), and challenges to this theory by recent work using optogenetic manipulations. Letter grading.

205O. Neurobiology of Defensive Behaviors. (2) Lecture, three hours (five weeks). Designed for graduate students. Overview of modern literature in rodents dissecting anxiety, fear, and panic circuits. Letter grading.

206B. Introduction to Biological Signal Processing. (4) Lecture, three hours. Introduction to basic electronics and some common types of signal processing of value in laboratory research in animal and human neuroscience, with applications in human physiology such as neuroimaging, electroencephalogram (EEG), and cardiovascular phenomena. S/U or letter grading.


212. Evaluation of Research Literature in Psychology. (4) Seminar, four hours. Survey of papers discussing theories for several social problems. Special attention to conceptualization of social problems as opposed to problems of individuals, and presentation of multidimensional explanatory models and interventions for several social problems. Special attention to ethnic and socioeconomic health disparities and to methodological issues faced in conducting research on these issues. Letter grading.

216D. Psychology of Aging and Health. (4) Seminar, three hours. Limited to graduate students. Examination of basic epidemiology and biology of major chronic diseases (e.g., cardiovascular disease, cancer, diabetes) and consideration of practical and logistical issues involved in studying chronic disease populations in behavioral and population research. S/U or letter grading.

216H. Health Behavior Theory and Behavior Change. (4) Seminar, four hours. Overview of research and theory in health behavior and health behavior change. Identification of contribution of health behaviors to overall health, construction of studies methods that effectively change health behaviors, critical evaluation of health behavior change research, and generation of hypotheses and design research using main health behavior theories. S/U or letter grading.

217. Variable Topics in Health Psychology. (4) Seminar, three hours. Topics vary by instructor within health psychology area of study and may include epidemiology, child health psychology, health behavior, and behavior change. May be repeated for credit. S/U or letter grading.

218. Research Methods in Health Psychology. (4) Seminar, three hours. Designed for graduate psychology students. Basic foundation for health psychology graduate students to study various research designs and methods, measurement issues, responsible conduct of research, and related issues that are found in research in health psychology. S/U or letter grading.

219. Health Psychology Lecture Series. (2) Formerly numbered 425.) Lecture, one hour. Clinicians and researchers in health psychology from Los Angeles area present their research, and/or clinical work as part of training program in health psychology. May be repeated for credit. S/U grading.

220A. Social Psychology. (4) Lecture, three hours. Designed for graduate psychology students. Intensive consideration of concepts, theories, and major problems in social psychology.
Lecture, three hours. Designed for graduate psychology students. Research design and methodological issues in experimental and nonexperimental social research.

220C. Advanced Social Psychology. (4) Lecture, three hours. Requisites: course 220A or 220D. Review of contemporary topics and issues in social psychological research and theory.

220D. Introduction to Social Psychology. (4) Lecture, three hours. Designed for graduate students. Introduction to theory and research in social psychology for students who are not psychology majors. Service course for graduate students in education, sociology, political science, management, public health, etc. S/U or letter grading.

222A. Interpersonal Relations. (4) Discussion, three hours. Requisite: 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. Emphasis on application of theory and methods to work psychology but across social sciences in general, including anthropology, political science, and sociology. S/U or letter grading.

M222E. 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 interpersonal processes within organizations. Exploration of how individual behaviors, cognitions, and perceptions are affected by individual, group, content, 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 transferable skills, 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.

M222G. Social Vision. (4) (Formerly numbered 222GL) (Same as Communication M234.) Seminar, three hours. Exploration of nascent field of social vision, with emphasis on how visual culture 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.

222I. Intervention Science. (4) Seminar, three hours. Exploration of use of science as basis for intervention. Exploration of psychology of social problems, and potential for scientific insights to inform meaningful and lasting solutions to social problems. 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 226A and 226B are open to all social 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 criticized in depth. S/U grading.

M226A. 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.

M228B. Seminar: Political Psychology. (4) (Same as Political Science M261D.) Discussion, three hours. Requisite: course 220A or Political Science M261A.

Examination of political behavior, political socialization, racial conflict, mass political movements, and public opinion. S/U or letter grading.

M228C. Critical Problems in Political Psychology. (4) (Same as Political Science M261E) Discussion, three hours. S/U or letter grading.

232. History and Quality. (4) Lecture, three hours. Designed for graduate students. Intended to teach students how to carry out research on human sexual behavior. Contents include theory construction, scale development, social desirability, and neuroendocrine implications, radioimmunoassay (measuring hormones in blood sample), ethical issues, methodological and statistical considerations, measurement of sexual arousal, physiological and behavior modeling, and fuzzy- logic-oriented, with emphasis on operationalizing predictions concerning human sexual functioning.

233. Seminar: Environmental Psychology. (4) Requisites: courses 235, 250A, 250B. Critical review of work in environmental psychology designed to identify basic dimensions for analysis of man/environment relationships. Use of human emotional responses to environments as intervening variables linking specific stimuli to a variety of approach-avoidance behaviors. Individual differences and drug-induced states as these relate to emotional response dimensions used to explain within-individual differences in response to same stimuli or between one and another. Review of literature relating information rate from environments to arousal and preferences for those environments.


M236. Interdisciplinary Relationship Science. (4) (Same as Anthropology M233, Education M237, and Sociology M270J) Lecture, three hours. Limited to graduate students. Diverse approaches to relationship science in fields of anthropology, education, psychology, and sociology. Some of the 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.

M238. Survey Research Techniques in Psychocultural Studies. (4) (Same as Anthropology M233, Education M237, and Sociology M270J) 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 illustrate variety of 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 and language development. Designed for graduate students. Consideration of major topics and concepts, key theories, latest methods, and research findings in develop- ment 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. Consider- ation 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 psychobiology, including cognitive and affective neuroscience. Consideration of major topics and concepts, key-theo- ry, latest methods, and research findings. S/U or letter grading.

241. Current Developments in Developmental Psychology. (1) Discussion, 90 minutes. Designed for graduate developmental psychology students. Presentation of papers on current develop- mental psychology and closely related areas by ex- perts in the field. Emphasis on approaches to a problem, making it suitable to interweave presenta- tion of a student, graduate student, and faculty member.

242A—M242G. Seminars: Developmental Psychology. (4 each) Each course may be taken independently and may be repeated for credit.

242A. Perceptual Development. (4) Seminar, three hours. Requisites: courses 240A, 240B. May be taken independently and may be repeated for credit. S/U or letter grading.

242B. Cognitive Development. (4) Seminar, three hours. Requisites: courses 240A, 240B. May be taken independently and may be repeated for credit. S/U or letter grading.

242C. Socialization. (4) Seminar, three hours. Requi- sites: courses 240A, 240B. May be taken indepen- dently and may be repeated for credit. S/U or letter grading.

242F. Development of Language and Communication. (4) Seminar, three hours. Requisites: courses 240A, 240B. May be taken independently and may be re- peated for credit. S/U or letter grading.

M242G. Adolescent Development. (4) (Same as Edu- cation M217F) 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- berty development, changes in parent/adolescent rela- tionships, role of peers, identity development, high- risk behaviors, stress and coping, and school adjust- ment. Letter grading.

243A—243B. Seminars: Practical and Societal Is- sues in Developmental Psychology. (4—4) Seminar, three hours. Requisites: courses 240A, 240B. Socialization processes in human development and implica- tion of social/political, educational, research issues, values, and societal change. In Progress (243A) and S/U or letter (243B) grading.

244. Critical Problems in Developmental Psycholog- ies. (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.

M245. Personality Development and Education. (4) (Same as Education M231C) Lecture, four hours. Re- view of research and theory of critical areas of personality development that bear on school perfor- mance: achievement motivation, self-concept, ag- gression, sex differences, empathy, and other social behaviors; review of status of emotional behavior in personality theory and development. S/U or letter grading.


M247. Culture, Brain, and Development. (4) (Same as Sociology M249) Seminar, three hours. General in- troduction to interrelations of culture, brain, and develop- ment, including both social and cognitive develop- ment. Special attention to effects of social culture on human development and S/U or letter grading.

M248. Brain and Behavioral Development during Adolescence. (4) (Formerly M217C) Lecture, four hours. (Same as Neuroscience M248) Seminar, three hours. Founda- tional and emerging work on adolescent brain and be- havioral development. Topics include cognition, risk taking, emotion, identity, family, role transitions, 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.

250A. Advanced Psychological Statistics. (4) Review of current research and measurement models and techniques as applied to design and interpretation of experimental and observational research. Lecture, three hours; discussion, two hours. Requisite: course 250A. Limited to graduate students. Review of traditional topic 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. Designed for graduate psychology students. Students design and conduct original research projects and present their findings. Letter grading.

252A. Multivariate Analysis. (4) Lecture, three hours. Requisites: courses 250A, 250B. Introduction to analysis of data having multiple dependent variables. Topics include categorical univariate and multivariate distributions, independent and conditional independence, log-linear models, multivariate categorical designs, and ordered categorical variables. Applications from clinical, cognitive, physiological, and social psychology. Computer methods.

252B. Discrete Multivariate Analysis. (4) Lecture, three hours. Requisites: courses 250A, 250B. Introduction to analysis of frequency table data. Topics include categorical univariate and multivariate distributions, independence and conditional independence, logistic-linear models, multinormality, nonparametric data structures, meta-analysis, modeling variance, and other topics of interest. Readings in both quantitative and substantive multivariate modeling literature. S/U or letter grading.

252C. Multivariate Analysis with Latent Variables. (4) (Same as Political Science M208D and Statistics M242.) Lecture, three hours. Introduction to models and methods for analysis of data hypothesized to be generated by unmeasured latent variables, including confirmatory and exploratory latent variable analyses of traditional methods in multivariate analysis. Causal modeling: theory testing via analysis of moment structures. Measurement models such as confirmatory, hierarchical, and structural models. Factor 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.


254A. Computer Methods for Psychology. (4) Lecture, three hours. Requisites: courses 250A, 250B. Use of MATLAB, but only basic programming knowledge is required. Designed to teach basic computer methods relevant to work in experimental psychology and cognitive science. Topics include simulation/modeling, statistical data analysis, and stimulus presentation. S/U or letter grading.

254B. Mediation, Moderation, and Conditional Process Analysis. (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) effects occur; and combination of these to examine when certain processes occur (conditional processes). S/U or letter grading.

254C. Bayesian Statistics. (4) Lecture, three hours. Requisite: course 250A. 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. Emphasis on 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.


256A. Introduction to Multilevel Modeling. (4) Lecture, four hours. Requisite: course 250C. Basics of random coefficient models for analysis of data from (1) individuals nested within larger observed or unobserved groups; (2) observations of individuals (longitudinal growth models). Selected advanced topics including three-level models, cross-classification, dyadic data, categorical outcomes, power, and assumption violation. S/U or letter grading.

256B. Advanced Multilevel Modeling. (4) Lecture, four hours. Requisite: course 256A. Advanced topics in analysis of clustered and longitudinal data, including baseline and point-specific effects, non-linear models, multilevel mediation models, and measurement models. Special problems in multilevel modeling literature. S/U or letter grading.

257. Multivariate Analysis with Latent Variables. (4) (Same as Political Science M208D and Statistics M242.) Lecture, three hours. Introduction to models and methods for analysis of data hypothesized to be generated by unmeasured latent variables, including confirmatory and exploratory latent variable analyses of traditional methods in multivariate analysis. Causal modeling: theory testing via analysis of moment structures. Measurement models such as confirmatory, hierarchical, and structural means factor 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-260C. Prosimians: Cognitive Psychology. (1–1–1) Presentation of research topics by students, faculty, and visitors. 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, smell, taste, or feel as they do? What is the nature of perceptual systems? How do these systems process information?


268A-268E. Seminars: Human Information Processing. (4 each) Seminar, three hours. Topics vary with interests of instructor. Each course may be taken independently and may be repeated for credit. 268A. Perception; 268B. Human Learning and Memory; 268C. Judgment and Decision Processes; 268D. Language and Cognitive Models; 268E. Human Performance.

268F. Human-Computer Interaction. (4) Lecture, three hours. Limited to graduate students. Concepts, theories, and pragmatics of human-computer interaction. Topics include optimizing Web and product interaction to enhance human-computer experience, with focus on applying principles of cognition, perception, learning, and memory to create human-computer interactions that are consonant with user needs and capabilities. Course projects include creating and user testing actual Web-based application. S/U or letter grading.

269. Seminar: Cognitive Psychology. (4) Seminar, three hours. Discussion of cognitive psychology that encompasses more than a single subfield of the area. May be repeated for credit.


270A. Corequisite: course 271A. Analysis of phenomenological, theoretical, and research issues regarding etiology and mediating mechanisms in neurotic, affective, schizophrenic spectrum, and other personality disturbances. 270B. Corequisite: course 271B. Principlles and methods of psychological assessment and evaluation. 270C. Corequisite: course 271C. Principlles and methods of psychological assessment and evaluation. 270D. Corequisite: course 271D. Designed for graduate clinical psychology students. Acquaints students with faculty research interests and involves them in their course 251 research at an early stage to insure completion. S/U grading.


271D. Clinical Research Laboratory. (2) Discussion, one hour; laboratory, one hour. Corequisites: courses 270A or 270B or 270C, and 271A or 271B or 271C. Designed for graduate clinical psychology students. Acquaints students with faculty research interests and involves them in their course 251 research at an early stage to insure completion.


271G. Evidence-Based Intervention for Childhood Problems. (4) Fieldwork, five-day, 35-hour training period in Fall Quarter. Requisites: courses 271A, 271B, 271C. Designed for second-year graduate clinical psychology students. Required of second-year graduate clinical psychology students. Course involves in application of (1) child treatment outcome literature, (2) clinical monitoring and feedback tools, and (3) common
clinical strategies from evidence-based practices to prepare for assessment, monitoring, planning, and service delivery in child practice. S/U grading.


272C. Advanced Clinical Psychological Methods: Clinical Interventions for Psychological Problems of Children. (2 or 4) Seminar, four hours. Requisite or corequisite: course 401 or 451. May be taken independently for credit. Letter grading.

272D. Advanced Clinical Psychological Methods: Family Therapy and Research. (4) Seminar, three hours. Requisites: courses 270A, 270B, 270C. Survey of major schools of family therapy and how each applies to specific clinical cases, with emphasis on depression, bipolar disorder, and schizophrenia. Discussion of research relevant to family therapy, modes of assessment, and specific interventions. May be taken independently for credit. Letter grading.


272F. Advanced Clinical Psychological Methods: Behavior Modification with Adults. (4) Seminar, three hours. Requisite or corequisite: course 401 or 451. Designed for second-year graduate clinical psychology students. Current cognitive behavior modification principles and techniques. Major conceptual issues; specific techniques demonstrated and practiced by students to cover a range of adult problems such as depression, stress and anxiety, anger management, assertion problems. May be taken independently for credit. Letter grading.


273A-273B-273C. Professional and Ethical Issues in Clinical Psychology. (2–2–2) Seminar, one hour; discussion, one hour. Designed for graduate clinical psychology students. Focuses on understanding and applying various dimensions of ethics, professional behavior, and conduct, and appropriate modes of clinical practice. May be taken independently for credit. Letter grading.


277. Advanced Clinical Assessment. (4–4) Lecture, four hours; laboratory, three hours. Designed for graduate clinical psychology students. Projective techniques, personality assessment studies, psychological test battery, psychopathology, and application of assessment to problems in psychotherapy. Letter grading.


290. History and Systems of Psychology. (2) Seminar, two hours. Requisites: courses 251A, 251B, 251C. Rich and detailed examination of history of full scope of psychology as scientific discipline, with particular emphasis on cognitive, social/personality, developmental, and biological perspectives. Broad treatment of how various emphases within broader field have evolved. S/U or letter grading.


292. Biobehavioral Mechanisms of Stress and Disease. (4) Lecture, three hours. Designed for graduate psychology students. Behavior/physiology interactions of some major bodily systems: nervous, cardiovascular, gastrointestinal, and endocrine systems. Usual and altered states of these systems (e.g., stress) as these can produce permanent tissue injuries, disease, or improved bodily function, health enhancement. S/U or letter grading.

293. Psychosocial Contributors to Ethnic Disparities in Health. (4) Seminar, three hours. Limited to graduate students. Role of social class, gender, and other psychosocial factors in accounting for disparities in physical and psychological health among racial/ethnic groups. Attention to variety of specific disorders, with focus on explanatory models and approaches to intervention. S/U or letter grading.


295. Psychology of Diversity. (4) Seminar, three hours. Introduction to research dealing with group differences and psychology of diversity. Topics include social identity, intergroup relations, development across lifespan and across social and cultural contexts, and group disparities in health and mental health. Letter grading.

296. Research Topics in Psychology. (1) Research group meeting, one hour. Limited to graduate students. Discussion of current literature, new ideas, methodological issues, and preliminary findings. Research presentations and opportunities for feedback on current and proposed research activity to encourage, support, and facilitate student research enterprise. Assigned readings included. S/U grading.

296B. Research Group Seminars: Practicum. (1) Seminar, one hour. Designed for graduate students who are part of research group that meets with under-graduate students. Discussion of research methods and current literature in field or of research of faculty members or students. Concurrently scheduled with course C194D. S/U grading.

297. Methods in Developmental Cognitive Neuroscience. (4) (Formerly named Neuro- science M297.) Seminar, three hours. Survey of methods and tools used to address developmental cognitive neuroscience questions. S/U or letter grading.

298. Special Problems in Psychology. (1 to 4) Seminar, one to three hours. Content depends on interests of particular instructor. 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.

401. Fieldwork in Clinical Psychology. (1 to 12) Fieldwork, to be arranged. Requisites: courses 271A, 271B, 271C. Students on practicum assignments are required to register for this course each term (except by consent of clinical program committee). 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 activity 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 prepares 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.

404. 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.

410A–410B–410C. Clinical Teaching and Supervision. (4–4–4) Clinic, two hours; reading and group work, two to six hours. Preparation: consent of UCLA graduate advisor and department chairman. Under faculty supervision, students serve as teaching assistants in course 10. S/U grading.

420A–420B. Health Psychology Practicum. (2–2) Fieldwork, to be arranged. Designed for graduate students. Determination of what areas of health, illness, treatment, and delivery of treatment can be elucidated by understanding of psychological concepts and research; psychological perspective on these problems; how psychological perspective might be enlarged and extended in medical area. Through practical field placement, students apply knowledge acquired in class to research observation and/or clinical work in field. S/U or 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.

423. Social Survey Research Practicum. (4) Practicum, two hours; additional hours to be arranged. Methods of survey sampling, conduct and management of computer-assisted telephone interview surveys. S/U or letter grading.


454. Internship in Industrial Psychology. (2 to 4) Fieldwork, to be arranged. S/U or letter grading.

459A. 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.


501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and department chairman. Under faculty supervision, students serve as teaching assistants in courses taken under cooperative arrangements with USC. S/U grading.

560. Directed Individual Research and Study in Psychology. (2 to 12) Tutorial, to be arranged. Preparation: successful completion of departmental qualifying examinations. May be required by some area committees as requisite for taking examinations. S/U grading.

589. Research for PhD Dissertation. (2 to 12) Tutorial, to be arranged. Preparation: successful completion of qualifying examinations. One 599 course is required during each succeeding 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. (2 to 12) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and department chairman. Under faculty supervision, students serve as teaching assistants in courses taken under cooperative arrangements with USC. S/U grading.

598. Directed Individual Research and Study in Psychology. (2 to 12) Tutorial, to be arranged. Preparation: successful completion of qualifying examinations. One 599 course is required during each succeeding year of graduate study. (Terminal MA candidates are exempt from this requirement.) S/U grading.

599. Research for PhD Dissertation. (2 to 12) Tutorial, to be arranged. Preparation: successful completion of qualifying examinations. One 599 course is required during each succeeding year of graduate study. (Terminal MA candidates are exempt from this requirement.) S/U grading.

PUBLIC AFFAIRS

Interdisciplinary Minor

Meyer and Renee Luskin School of Public Affairs

3343 Public Affairs Building

Box 951656

Los Angeles, CA 90095-1656

Public Affairs Minor

310–794–4080

E-mail contact

Meredith Phillips, PhD, Chair

Faculty Committee

Kenya L. Covington, MCP, PhD (Public Policy)

Lené F. Levy-Storms, MPH, PhD (Medicine, Social Welfare)

Meredith Phillips, PhD (Public Policy, Sociology)

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.
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.

Undergraduate Major
Public Affairs BA

Capstone Major

The Public Affairs major is a designated capstone major. Students pursuing 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 (UCCS) 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

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.

Premajor

Students entering UCLA directly from high school can select the Public Affairs premajor on the UCLA admission application, or complete a petition to enter the premajor 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 eight lower-division courses and ten upper-division courses. Students identified as Public Affairs premajors have the opportunity to formally apply to declare the Public Affairs major after completing five of the required lower-division courses and the school quantitative reasoning and Writing I requirements. Two of the five required lower-division courses must be Public Affairs 40 and 60, both of which serve as prerequisites 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 five of the eight 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 premajor and the major must be taken for a letter grade. (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.

Preparation for the Major

Required: Public Affairs 10, 20, 30, 40, 50, 60, 70, 80.

Policies

Each course must be taken for a letter grade. Preparation for the major courses must be completed with a C grade or better.

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.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

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 187A, 187B, 187C; (4) three additional upper-division public affairs courses.

Policies

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.

Public Affairs

Lower-Division Courses

10. Social Problems and Social Change. (8) 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. First Lux Freshman Seminar (1 hour). Examination of student roles in supervised setting in corporate, governmental, or nonprofit/community organization setting related to public affairs. Students meet on regular basis with instructor and provide evidence of learning. Individual contract with supervising faculty member required. May be repeated for credit. 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-divisions, larger systems, and social and cultural backdrops. Letter grading.

115. Using Quantitative Methods to Understand Social Problems and Their Potential Solutions. (5) Lecture, three hours; discussion, two hours. Requires: 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 theoretical understanding of multiple regression, program evaluation, and research methods, and apply knowledge by analyzing real world data. Focus on practical analytic 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.

120. Urban Poverty and Urban Policy. (4) Lecture, three hours. Exploration of how neighborhoods characterized by concentrated poverty affect urban residents. Evaluation of relative efficacy of various public policies that aim to improve life chances of urban poor. Use of explicitly political lens, evaluating roles that self-determination, marketing, and race-based power disparities, and public opinion play in development and implementation of urban policy. Letter grading.

111. Microeconomics: Market Failures and Inequality. (4) Lecture, three hours; discussion, one hour. Introduction to 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, educational, inequality, and poverty. Letter grading.

50. Foundations and Debates in Public Thought. (4) Lecture, three hours; discussion, one hour. Introduction to 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, 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.

30. Comparative Analysis of Wealth, Policy, and Power. (5) Lecture, three hours; discussion, one hour. Exploration of strategic interactions that give rise to social problems around world, what can be done to address them, and how different policies have tried (and sometimes failed) to mount effective response. Applications include climate change, antivaccination movement, gun control, war and formation of states, corruption, and human and drug trafficking. Letter grading.

40. Microeconomics for Public Affairs. (5) Lecture, three hours; discussion, one hour. Introduction to 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, educational, inequality, and poverty. Letter grading.

60. Using Data to Learn about Society: Introduction to Empirical Research and Statistics. (5) Lecture, three hours; discussion, two hours. Introduction to statistics through examination of topics of public interest. Familiarization with research design principles and hands-on data analysis using statistical software. Students learn how to find and organize quantitative data; summarize, display, and interpret data; draw inferences from samples (including understanding margin of error, standard errors, and confidence intervals); test hypotheses about associations between two variables (including tests of proportion, t-tests, chi-squared correlation); and communicate findings to lay audience. 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. Examination of how evidence, arguments, and policy problems and public issues. Examination of social 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, four 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 forces interact with biological, cognitive, and psychological processes to affect individuals during key developmental periods (such as early childhood, childhood, adolescence, early adulthood, and late adulthood). Topics 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.

95. Introduction to Community or Corporate Internships in Public Affairs. (2 or 4) Tutorial, two hours; fieldwork, eight hours. Limited to freshmen. Individuals in supervised setting in corporate, governmental, or nonprofit/community organization setting related to public affairs. Students meet on regular basis with instructor and provide evidence of learning. Individual contract with supervising faculty member required. May be repeated for credit. 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-divisions, larger systems, and social and cultural backdrops. Letter 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. P/NP or 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 in urban planning to study cities and urban transformations, and historical and contemporary analysis of urbanization to learn about key urban processes such as agglomeration, segregation, gentrification, and suburbanization. Students learn about institutions and policies governing transportation and housing, 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 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, educational, inequality, and poverty. Letter grading.

112. Social Movements. (4) Lecture, three hours; discussion, one hour. Introduction to theories, real-life examples, and applied skills for understanding and contributing to social movements. Examination of how and why social movements form; 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 the U.S. Letter grading.

113. Policy Analysis: Approaches to Addressing Social Problems. (4) Lecture, three hours; discussion, one hour. Introduction to applied policy analysis designed to train students in logic of public policy analysis. Introduces the tools 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.

114. People, Organizations, and Systems. (4) Lecture, three hours. Theoretical approaches to human service organizations to explore social ecology of helping relationships and problem-solving processes in which helpers and clients in organizations engage. Examination of organizational structures/function. Study of interplay between individual clients, organizations, larger systems, and social and cultural backdrops. Letter grading.
M131. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Chicana/o and Central American Studies M106B, Gender Studies M104C, Gerontology M104C, 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 them. Letter grading.

134. Politics of U.S. Health Policy. (4) Lecture, three hours. Students gain firm understanding of process of health policy making in U.S. primarily through lens of debate over national health care reform in passage of Patient Protection and Affordable Care Act (ACA) of 2010 and efforts of opponents to repeal or overturn it. Letter grading.

135. Firearm Violence Prevention Policy. (4) Lecture, three hours. Examination of role of bureaucrats in emergence of, persistence of, and experience of social 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 socio-economic 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 Central 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 policy issues affecting them. Survey of social, economic, cultural, and political circunstances 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; evaluation of ways in which living in racially and economically segregated neighborhoods constrain opportunity and social mobility; exploration of most prevalent affordable housing policies; and evaluation of their prospective program 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, contrasting those with U.S. housing policy with policies in different contexts to better understand how institutional, economic, legal, and cultural contexts shape housing policies and housing outcomes. Letter grading.

M152. Local Policymaking for Urban Planners. (4) (Same as Public Policy M152.) Seminar, three hours. Study of complex arena of public policy and ethical concerns in planning and community development; necessity to balance demands from interest groups including political, business and nonprofit sectors, general public; and interrelationship between local government implementation and federal urban laws and regulations. Letter grading.

M153. Transportation and Land Use: Parking. (4) (Same as Urban Planning M153.) Lecture, three hours. Requisites: course 40 or Economics 1 or 11. Parking is misunderstood link between transportation and land use. Transportation engineers typically assume that free parking simply is there at 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 parking planning are obvious to any plain why parking for transportation and land use has in many ways gone slowly, subtly, incrementally wrong. Study of theory and practice of planning for parking in different settings. Exploration of parking in U.S. has become plan for free parking. Exploration of new ways to improve planning for parking, transportation, and land use. Letter grading.

150XP. Trees in City. (4) Lecture, three hours. Introduction of foundational ecological concepts using case of urban trees. Includes wide range of disciplines as well as practitioner and community organizing perspectives 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 M168.) 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. Key issues include water and state building, market reforms and globalization, social mobilization, and citizen demand making strategies, role of crisis in citizen claims making. 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 humankind. 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 geography and urban planning to understand articulations of urban sustainability and how it might be achieved. Letter grading.

M161. Environmental Justice through Multiple Lenses. (4) (Same as Chicana/o and Central American Studies M167 and Urban Planning M167.) 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 concentrated along lines of race and ethnicity, it constrains utility of political solutions. Understanding and addressing environmental injustice requires also potential centers of innovation for addressing those challenges. Examination of theory and practice from geography and urban planning to understand articulations of urban sustainability and how it might be achieved. 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 raise important public policy issues. Consideration of critical issues, each of which has substantial ethical, social, economic, political, scientific, and technological aspects. 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 concepts in social sciences. Examination of cultural 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. Examination of use of culture in internationally entrenched political interactions 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 Studies M176XP) Lecture, three hours. Introduction to documentary video production and distribution. Students work on assignments in pairs and small groups to create 10-15 minute video of local food justice. Students gain tools necessary for creating documentary film and for public policy shaping law. Covers key skills for understanding legal reasoning and shows how those skills operate in various media. Letter or P/NP 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 influences policy, and how public policy shapes law. Covers key skills for understanding legal reasoning and shows how those skills operate in various media. Letter or P/NP grading.

187A-187B-187C. Experiential Learning Capstone. (4-4-4) Lecture; two hours; discussion, one hour. Course 187A is requisite to 187B, which is requisite to 187C. Limited to and required for senior Public Affairs majors. Students apply public affairs course concepts and methods to internship experience; 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.

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. CAPPW Washington, DC, Research Seminars. (8) (Same as Communication M191DC, History M191DC, Political Science M191DC, and Sociology M191DC.) Seminar, three hours. Limited to CAPPW 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 research based on experiences from Washington, DC-based field placements. Study of variety of qualitative and quantitative research methods. Letter grading.

191DC. CAPPW Washington, DC, Research Seminars. (8) (Same as Communication M191DC, History M191DC, Political Science M191DC, and Sociology M191DC.) Seminar, three hours. Limited to CAPPW 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 research based on experiences from Washington, DC-based field placements. Study of variety of qualitative and quantitative research methods. Letter grading.
Public Health Minor

Overview
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, identifying health problems and priorities, understanding the formulation of public policies designed to solve identified local and national health problems and priorities.

Undergraduate Minor

Public Health Minor
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. Admission is competitive and based on grade-point average and an application essay.

The Minor
Required Upper-Division Courses (28 units): Seven courses, including Biostatistics 100A, Community Health Sciences 100, Environmental Health Sciences 100, Epidemiology 100, Health Policy and Management 100, Public Health C150 (must be taken during the first term of enrollment in the minor), and one elective course to be selected from Biostatistics 100B, Community Health Sciences 91, 130, 132, M140, 180, 181, Health Policy and Management M110, C121, Public Health S3, M105, or M151.

Policies
Transfer credit for any of the above is subject to school approval. 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.

Faculty Committee
Hilary J. Aralis, PhD (Biostatistics)
Deborah C. Glik, PhD (Community Health Sciences)
Robert Kim-Farley, MD, MPH (Community Health Sciences, Epidemiology)
Naderesh Pourat, MSPH, PhD (Health Policy and Management)
Shane S. Que Hee, PhD (Environmental Health Sciences)

PUBLIC HEALTH

SCHOOLWIDE PROGRAMS
Jonathan and Karin Fielding School of Public Health
16059 Center for Health Sciences
Box 951772
Los Angeles, CA 90095-1772

Public Health
310-825-5524

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 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 an understanding of the health status of the population through data gathering and analysis, as well as knowledge of the complex relationships between disease process in the social and biological environment of the community.

The field of public health today needs practitioners from many disciplines. Candidates for graduate study may come from a wide variety of academic backgrounds, training, or experience, including both the natural and social sciences.

Graduate Majors

Doctor of Public Health

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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.
Public Health

Lower-Division Courses

10. Introduction to Public Health. (4) Seminar, three hours. Designed for lower-division students. Introduc-
tion to topics of health, population, and health professions, and tools to help you understand current public health issues and public health systems, policies, and practices. 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.

53. Introduction to Health of Underserved and Linguistic Minority Communities. (4) Lecture, three hours. Exploration of health and health care experiences, historical and current social structures, barriers to health care, and strategies for overcoming these barriers. Limited to School of Public Health graduate students. S/U 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 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 Chicanx/Latino Community. (4) As part of Chicanx/Latino health experiences, students will learn about health disparities and inequities in a variety of contexts. The course focuses on health disparities and inequities in a variety of contexts. The course is designed to provide an introduction to the field of health disparities and inequities, with a focus on the Chicanx/Latino community. Limited to School of Public Health graduates. S/U or letter grading.

M150A lyr. Outreach and Education for At-Risk Populations. (4) Seminar, four hours; field observation. First in a series of courses to explore educational intervention in at-risk populations, clinical services and referrals for at-risk populations, and links between academic achievement, career, and family. Lectures by faculty and practitioners, with field visits. P/NP or letter grading.

M160B. Health Outreach and Education for At-Risk Populations. (4) Seminar, four hours; discussion, two hours. Designed for lower-division students. Introduction to the field of health outreach and education for at-risk populations, including health education, public health policies and practices. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College Program 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 develop 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 College Program 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 corequisite: Honors College Program 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to facilitate course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

Graduate Courses

200A-200B. Foundations in Public Health. (8-8) Lecture, eight hours. 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 ef-
fec-tive public health professional, including oral and written presentation skills for relevant audiences, data analytic and presentation skills, and multidisciplinary team-building skills. Limited to students entering public health workforce. MPH students participate in systems-based health-care course with dental, medical, and nursing students. S/U 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 tools important for leadership designed for all doctoral students in School of Public Health. 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, commu-nica-tion, cultural humility, and implicit bias, while supporting professional development and growth of Master of Public Health students (MPH). Focus on develop-
ment of strong collaborative skills with opportu-
nities to practice benefiting students entering public health workforce. MPH students participate in systems-based health-care course with dental, medical, and nursing students. S/U 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 become successful and innovative instructors. Active learning methodologies and compe-
tencies-based approach to instruction. S/U or letter grading.

490. Public Speaking Mastery for Public Health Professional. (2) 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 be-
come 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 pre-
sentations with confidence and professionalism are encouraged to enroll. S/U grading.

495. Preparation for Teaching Public Health. (2) Seminar, two hours. Designed for graduate students. Preparing individuals will serve as teaching assistants for courses in Fielding School of Public Health. Study of methodologies in teaching public health, in-
cluding implementing active learning strategies, effec-
tively communicating goals for student learning, de-
veloping course materials that are consistent with expec-
tations for student learning, creating inclusive teaching environment, and dealing with difficult situa-
tions. S/U grading.

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
Martin I. Gilens, PhD, Chair

Faculty Roster

Professors
Matthew A. Barreto, PhD
Arturo V. Bustamante, MMP, PhD
J.R. DeShazo, MSc, PhD
Matthew A. Barreto, PhD
PhD
Neal Halfon, MD, MPH
S. Jody Heymann, MD, PhD
Gerald F. Kominski, PhD
Arturo V. Bustamante, MPP, PhD
Susanne Lohmann, PhD

Fieldwork required. Letter grading.
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

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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/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

Public Policy

Lower-Division Courses

10A. Introduction to Public Policy. (5) Lecture, three hours; workshops and outside study, three 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 and practitioners, with readings from academic literature and policy reports. P/NP or letter grading.

10D. Public Policy and Urban Homelessness. (5) Lecture, three hours; outside study, film review, and field/volunteer work, nine hours. Application of policy analysis to issues and solutions concerning homelessness. Guest lectures from local policymakers. 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 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 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 literature and theory on leadership, examination of leadership and group dynamics, and challenge of leadership in times of stress and change. Letter grading.

113. 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 insurance for millions, and highest costs in world, hampering families, businesses, and government. What political dynamics produced this result and influence possibilities and direction of ongoing policy change? Examination of meaning of health and healthcare; international experience; current status, organization, and financing of U.S. healthcare delivery system; and factors in national health policymaking, including comprehensive healthcare reform: framing of problems, role of public opinion, influence of interest groups, composition and organization of Congress, and opposition for and applications of presidential leadership. P/NP or letter grading.

M120. Race, Inequality, and Public Policy. (4) (Same as African American Studies M120.) Lecture, three hours. Requisites: course 101, one hour. Background in economic sociology, 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.

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 Economics 1, 2, 5, 11, or 101. Examination of how public issue life cycle is shaped by (1) economic and political incentives of various actors—business, news media, mass public, organized interests, Congress, the president, regulatory agencies, and courts and (2) ideology, cognitive biases, and ethical considerations. Letter grading.

M152. Local Policymaking for Urban Planners. (4) (Same as Public Affairs M152.) Seminar, three hours. Study of complex arena of public policy and ethical concerns in planning and community development; necessity to balance demands from interest groups including planners, politicians, business and nonprofit sectors, general public; and interrelationship between local government implementation and federal laws and regulations. Letter grading.

CM171. International Development. (4) (Same as Economics M121A.) Lecture, three hours. Requisite: Economics 102 or 111. Why are some countries rich, while other countries are poor? What can policymakers do to make citizens better off? How can citizens use their resources to conduct research on these questions. Study of both methodologies used to answer questions in development economics, like natural experiment and randomized control trials, as well as relationship between development 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 CM271. P/NP or letter grading.

CM182. Science, Technology, and Public Policy. (4) (Same as Electrical and Computer Engineering CM182 and Public Affairs M164.) Lecture, three hours. Recent and continuing advances in science and technology are raising profound public policy issues. Consideration of selection of critical policy issues, each of which has substantial ethical, social, economic, political, scientific, and technological aspects. Concurrently scheduled with course CM282. 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 students 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 and analysis, conceptualization, and written analysis and presentation. Letter grading.


188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: course 188SB. 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 prerequisite: course 188SC. Limited to 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 graduate-level 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. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A. Variable Topics Research Seminars: Public Policy. (4) Seminar, three hours; outside study, nine hours. Examination of particular subfields of policy studies (e.g., international policy, crime policy, policy history) in depth, with specific topics to be identified by instructor. Reading, discussion, and development of culminating project. Must be taken for credit if applied toward Public Affairs minor. May be repeated for credit with topic change. P/NP or letter grading.

191B. Variable Topics Seminar: Public Policy. (4) (Formerly numbered C191B.) (Same as Public Affairs M191P) Seminar, three hours; outside study, nine hours. Enforced prerequisite: course 102 or 111. May be repeated for credit with topic change. Concurrently scheduled with course C219B. P/NP or letter grading.

191C. Variable Topics Research Seminars: Public Policy. (2) Seminar, two hours; outside study, four hours. Examination of particular subfields of policy studies (e.g., international policy, crime policy, policy history) in depth, with specific topics to be identified by instructor. Reading, discussion, and development of culminating project may be taken for credit if applied toward Public Affairs minor. May be repeated for credit with topic change. P/NP or letter grading.

191D. Variable Topics Research Seminars: Public Policy. (4) Lecture, two hours; outside study, six hours. Examining the public policy process. May be repeated for credit with topic change. P/NP or letter grading.

191E. Variable Topics Research Seminars: Public Policy. (2) Seminar, two hours; outside study, four hours. Examining in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

201. Principles of Microeconomic Theory I. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended preparation: Economics 102 or 111. Why are some countries rich, while other countries are poor? What can policymakers do to make citizens better off? How can citizens use their resources to conduct research on these questions. Study of both methodologies used to answer questions in development economics, like natural experiment and randomized control trials, as well as relationship between development 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. Letter grading.

202. Principles of Microeconomic Theory II. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended preparation: Economics 102 or 111. Why are some countries rich, while other countries are poor? What can policymakers do to make citizens better off? How can citizens use their resources to conduct research on these questions. Study of both methodologies used to answer questions in development economics, like natural experiment and randomized control trials, as well as relationship between development 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. Letter grading.

204. Principles of Microeconomic Theory II. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended preparation: Economics 102 or 111. Why are some countries rich, while other countries are poor? What can policymakers do to make citizens better off? How can citizens use their resources to conduct research on these questions. Study of both methodologies used to answer questions in development economics, like natural experiment and randomized control trials, as well as relationship between development 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. Letter grading.

205. Principles of Microeconomic Theory II. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended preparation: Economics 102 or 111. Why are some countries rich, while other countries are poor? What can policymakers do to make citizens better off? How can citizens use their resources to conduct research on these questions. Study of both methodologies used to answer questions in development economics, like natural experiment and randomized control trials, as well as relationship between development 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. Letter grading.

206. Principles of Microeconomic Theory II. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended preparation: Economics 102 or 111. Why are some countries rich, while other countries are poor? What can policymakers do to make citizens better off? How can citizens use their resources to conduct research on these questions. Study of both methodologies used to answer questions in development economics, like natural experiment and randomized control trials, as well as relationship between development 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. Letter grading.

208. Principles of Microeconomic Theory II. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended preparation: Economics 102 or 111. Why are some countries rich, while other countries are poor? What can policymakers do to make citizens better off? How can citizens use their resources to conduct research on these questions. Study of both methodologies used to answer questions in development economics, like natural experiment and randomized control trials, as well as relationship between development 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. Letter grading.

210. Methods of Policy Analysis. (4) Lecture, three hours; outside study, nine hours. 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.

211. Methods of Policy Analysis. (4) Lecture, three hours; outside study, nine hours. 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.

212. Child Welfare Policy. (4) (Same as Social Welfare M209.) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended preparation: Economics 102 or 111. Why are some countries rich, while other countries are poor? What can policymakers do to make citizens better off? How can citizens use their resources to conduct research on these questions. Study of both methodologies used to answer questions in development economics, like natural experiment and randomized control trials, as well as relationship between development 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. Letter grading.
M213. Mental Health Policy. (Same as Social Welfare M290K.) 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 provided. S/U or letter grading.


M215. Health Policy. (Same as Social Welfare M290M.) Lecture, three hours. Introduction to contemporary health insurance and delivery systems, 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.

M216. Public Policy for Children and Youth. (Same as Social Welfare M290N.) 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 at federal, state, and local levels. S/U or letter grading.

M217. Graduate Seminar in Environmental Economics and Policy. (Same as Environmental Health Sciences M217.) Seminar, four hours. Preparation; utilization of statistics, basic understanding of microeconomics. Introduction to applied scholarship in environmental economics and policy. Enables students 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), Developmental of detailed empirical research proposal and short presentation. Letter grading.

M218. Methods and Strategies for Social Policy. (Same as Urban Planning M204.) Lecture, three hours; outside study, nine hours. Limited 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, interviews, and survey design. Letter grading.

M220. Transportation, Land Use, and Urban Form. (Same as Urban Planning M250.) Lecture, three hours. Historical evolution of urban form and transportation systems, intrametropolitan location theory, recent trends in urban form, history of jobs/housing balance, transportation in strong central city and polycentric city, neotraditional town planning debate, rail transit and urban form. Letter grading.

M221. Travel Behavior Analysis. (Same as Urban Planning M253.) Lecture, three hours. Requisites: courses 201 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 modeling methods and new approaches to travel behavior analysis. Letter grading.

M222. Transportation Economics, Finance, and Policy. (Same as Urban Planning M256.) 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; private participation in road finance, toll roads, road costs and tolls, truck charges, congestion pricing; current issues in transit finance; transit fare and subsidy policies, contracting and privatization of transit services. Letter grading.

M223. Transportation and Environmental Issues. (Same as Urban Planning M258.) Lecture, three hours. Regulatory structure linking transportation, air quality, and energy issues, chemistry of air pollution, overview of transportation-related approaches to air quality enhancement; new car tailpipe standards; vehicle inspection and maintenance issues; transportation demand management and transportation control measures; alternative fuels and electric vehicles; corporate average fuel economy and global warming issues; growth of automobile worldwide fleet; automobile and oil in saturation. S/U or letter grading.

M224. Introduction to Geographic Information Systems. (Formerly numbered M224A.) Lecture, three hours. Preparation: one graduate-level statistics course, familiarity with one packaged statistics program (e.g., SPSS or SAS), and programming using a GIS (e.g., ArcGIS) and applied techniques of using spatial data for mapping and analysis. Topics include data quality, data manipulation, spatial analysis, and information systems. Letter grading.

M225. Education Policy and Education Inequality. (Same as Management M226.) Seminar, three hours; outside study, nine hours. Limited to graduate students. Examination of policies that may reduce socioeconomic and ethnic disparities in educational success. Topics include international and national comparisons of educational outcomes, immigration and public school choice, school accountability policies, interventions to improve school or teacher quality, parenting and preschool interventions, and supplemental education. Letter grading.

M227. Politics, Power, and Philanthropy. (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 the 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 strategies. Comparative perspective between U.S. and other countries. S/U or letter grading.

M228. Nonprofit Organizations and Philanthropy: Management and Policy. (Same as Social Welfare M241E and Urban Planning M228B.) Lecture, three hours; outside study, nine hours. Increased importance of nonprofit organizations—as service providers, vehicles of humanitarian assistance, policy advocates, social entrepreneurs, innovators, and as instruments of government reform—have moved this set of institutions closer to center of social welfare, urban planning and public policy agendas. Introduction of conceptual framework and literature on the roles, strategies, and influences that nonprofit organizations can have on public policy. Seminar, three hours; outside study, nine hours. Knowledge of nonprofit sector and its constituents elements. Examination of social history of nonprofit sector in U.S. Exploration of legal and policy environments and distinct organizational strategies. Comparative perspective between U.S. and other countries. S/U or letter grading.

M229. Law and Management of Nonprofit Organizations. (Same as Management M225.) Lecture, three hours. Requisites: one graduate-level statistics course, International 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, board and director elections, activity restrictions, and strategic planning, fundraising, nonprofit accounting, and employment law. S/U or letter grading.

M230. Immigration Policy and Activism. (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 rights, role in immigration policy, and border militarization. Letter grading.

M231. Politics of Food. (Same as Chicana/o and Central American Studies M286.) Seminar, three hours. Limited to graduate students. Investigation of role of food and consumption in problems impacting people who live in poverty including food insecurity, gender discrimination, welfare, public education, health disparities, and segregation, among other political and economic issues. S/U or letter grading.

M232. Chicana/o and Intersectional Marxisms. (Same as Chicana/o and Central American Studies M257.) Seminar, three hours. Examination of relationship between Marxism, intersectionality, 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. Introduction to topics of intersectionality and contemporary perspectives. Focus on issues including creation of illegal immigration, border militarization, detention, deportations, racism, and exclusionary political processes. Letter grading.

M240. Theories of Regional Economic Development I. (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.

M241. Introduction to Regional Planning. (Same as Urban Planning M230.) Lecture, three hours. Critical and historical survey of evolution of regional planning theory and practice, with particular emphasis on relations between regional planning and developments within Western social and political philosophy. Major regional planning traditions and regionalism, territorial community, and social production of space. Letter grading.

M243. Community Development and Housing Policies: Roles of State, Civil Society, and Nonprofits. (Same as Chicana/o and Central American Studies M275.) Lecture, three hours; outside study, nine hours. Requisites: one graduate-level statistics course, International 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, board and director elections, activity restrictions, and strategic planning, fundraising, nonprofit accounting, and employment law. S/U or letter grading.

M243B. Housing Policy and Planning. (Same as Urban Planning M236B.) Lecture, three hours. Study of housing policy and planning focused partly on California housing, rapid change in housing state, with consideration of experiences from other states and countries and to what extent they are relevant here. Specific topics include housing and community development, housing policy and planning, 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.

M244. Shared Mobility Policy and Planning. (Same as Urban Planning M255.) Lecture, three hours. Introduction to planning, analysis, and management of shared mobility systems, with particular focus on interactions between shared mobility and public transit policy, and planning, including performance evaluation and route planning, measuring impacts of public policies.
M247B. Comparative Perspective on States, Markets, and Civil Society. (4) (Same as Social Welfare M209X and Urban Planning M210E.) 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 involving rights and responsibilities of three institutional complexes of modern society: political institutions, economic institutions, and civil society. In 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 fundamental 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, crisis management, governance innovation, and specific policy fields: infrastructure or global finance. S/U or letter grading.

CM250. Environmental and Resource Economics and Policy. (4) (Same as Urban Planning M267.) Lecture, three hours. Requisites: courses 204 and 208, or Urban Planning M261. Survey of ways in which economics is used to define, analyze, and resolve problems of environmental management. Overview of analytical questions addressed by environmental economics. Examines the role of economic evidence and technology are raising profoundly important social, economic, political, and technological issues. Lecture grading.

M253B. Lesbian, Gay, Bisexual, and Transgender Law and Public Policy Research. (4) (Same as Law M675J.) Lecture, three hours. Students learn the theoretical foundations of public policy research to lesbian, gay, bisexual, and transgender (LGBT) legal issues. Topics include LGBT identity and demographics, legal recognition of same-sex couples, workplace discrimination, transgender rights, intersections of race and sexuality, LGBT youth and safe schools, LGBT health disparities, and Don’t Ask, Don’t Tell. Discussion of 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 advocacy and implementation. Students learn and implement in-depth study of methodology and statistical approach to document presence or absence of vote dilution or vote denial in different jurisdictions. Discussion of historical and legal principles of federal civil rights, voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus 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 education, employment, housing, and political representation. Students learn and implement in-depth study of methodology and statistical approach to document presence or absence of vote dilution or vote denial in different jurisdictions. Discussion of historical and legal principles of federal civil rights, voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus 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 education, employment, housing, and political representation.

C291B. Variable Topics Seminar: Public Policy. (4) (Formerly numbered M297E.) Lecture, 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.

M296A. Voting Rights Policy and Law I. (4) (Formerly numbered M297E.) (Same as Social Science M460A.) Clinic, three hours. Collaborative course taught from perspective of social science research, civil rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus 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 law. 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 Act decisions, review accompanying expert reports, and work in teams on aspects of lawsuit. S/U or letter grading.

M296C. Voting Rights Policy and Law III. (4) (Same as Social Science M460C.) Clinic, three hours. Requisite: course M296A. Collaborative course taught from perspective of social science research, civil rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus 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 law. 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 Act decisions, review accompanying expert reports, and work in teams on aspects of lawsuit. S/U or letter grading.

M267. Medicare Reform. (4) (Same as Health Policy M252.) 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 options for reforming future Medicare program to accommodate coming pressures generated by retire ment of baby-boom generation. Letter grading.

M268. Microeconomic Theory of Health Sector. (4) (Same as Health Policy M253.) Lecture, four hours; discussion, one hour. Limited to graduate students. Familiarization with fundamental concepts, theories, and principles of economic development. Focus on indigenous communities broadly and contrasted with other regions, countries, and communities. Introdu tion to important economic models of 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 evaluating research conducted on and for indigenous peoples and governments. S/U or letter grading.

M270. Economic Principles and Economic Development in Indigenous Communities. (4) (Same as American Indian Studies M207.) Seminar, three hours; outside study, nine hours. Exploration of demand for health insurance, policies for public insurance (Medicare and Medicaid), uninsured, and health insurance reform. Examination of effects of managed care on health and costs, consumer protection movement, and rise of competitive healthcare markets. Lecture grading.

C171. International Development. (4) Lecture, three hours. Why are some countries rich, while other countries poor? What can we do to reduce poverty? Discussion of current research on these questions. Study of both methodologies used to answer policy questions in development economics, like natural experiments and randomized control trials, as well as relationship between development and institutions, education, growth, culture, and gender. Reading intensive, seminar-style course. Students are expected to read academic articles actively and participate in discussions. Students also learn how to use data to evaluate policies. Concurrently scheduled with course CM171. S/U or letter grading.

M280A. Research and Development Policy. (4) (Same as Management-PhD M251.) 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.

M280B. Growth, Science, and Technology. (4) (Same as Management M252B.) Lecture, three hours. Economic growth and change. Role of advances in science and technology, and actions of maximizing innovators and factors of behavior. Next technological breakthroughs (or discontinuities) can form new industries or transform nature of and population of firms in existing industries. S/U or letter grading.

M281. Political Environment of American Business. (4) (Formerly numbered M297E.) (Same as Social Science M460.) Lecture, three hours; discussion, one hour. Requisite: Community Health Sciences 210 or Health Policy and Management 200A and 200B. Examination of political factors that affect firms in existing industries. Rooftop solar, electric vehicle, and energy efficiency as focal examples, with emphasis on role of policy and planning initiatives to spur adoption. Letter grading.

C291A. Special Topics in Public Policy. (4) (Formerly numbered M297A.) Seminar, three hours. Emerging issues in public policy. May be repeated for credit. Letter grading.

C291B. Variable Topics Seminar: Public Policy. (4) Lecture, three hours; outside study, nine hours. Emerging issues in public policy. May be repeated for credit. Concurrently scheduled with course CM191B. S/U or letter grading.

M281C. Special Topics in Public Affairs. (4) (Same as Health Policy M200X 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.

M296A. Voting Rights Policy and Law I. (4) (Formerly numbered M297E.) (Same as Social Science M460A.) Clinic, three hours. Collaborative course taught from perspective of social science research, civil rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus 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 law. 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 Act decisions, review accompanying expert reports, and work in teams on aspects of lawsuit. S/U or letter grading.

M296B. Voting Rights Policy and Law II. (4) (Same as Social Science M460B.) Clinic, three hours. Requisite: course M296A. Collaborative course taught from perspective of social science research, civil rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus 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 law. 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 Act decisions, review accompanying expert reports, and work in teams on aspects of lawsuit. S/U or letter grading.

M296C. Voting Rights Policy and Law III. (4) (Same as Social Science M460C.) Clinic, three hours. Requisite: courses M296A, M296B. Collaborative course taught from perspective of social science research, civil rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus 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 law. 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 Act decisions, review accompanying expert reports, and work in teams on aspects of lawsuit. S/U or letter grading.
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 reports, legal argumentation and filings, deposition, and other case-related matters. S/U or letter grading.

297A. Public Policy Special Topics. (2) (Formerly numbered 297B.) Lecture, three hours. Study of emerging issues in public policy. May be repeated for credit. S/U grading.

297B. Public Policy Analysis Lectures. (2) (Formerly numbered 297C.) Lecture, one to 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.

297C. 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 their research and teaching. As signed readings are distributed in advance of each meeting. S/U grading.

297D. 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.

297F. Career Planning and Management. (2) (Same as Social Welfare M297F and Urban Planning M297F) Seminar, one to two hours. Designed to meet professional development needs of first-year Public Policy 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 articularly. Offers opportunity to learn professional development skills to assist with career planning strategies. S/U grading.

297P. Public Policy Seminar Series. (2) (Formerly numbered 297P.) 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, six hours. Preparation: 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. Conclusion of written report started in course 298B. Letter grading.

298D. Applied Policy Project IV. (2) (Formerly numbered 298D.) Seminar, two hours. Preparation: completion of MPP core curriculum, two policy cluster courses, and internship (unless waived). Requisite: course 298B. Third 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.

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 program for selected students to permit pursuit of a subject in greater depth. S/U or letter grading.

RADIATION ONCOLOGY

Radiation Oncology / 761

David Geffen School of Medicine

B265 UCLA Morton Medical Building
Box 956951
Los Angeles, CA 90095-6951

Radiation Oncology
310-825-9775

Michael L. Steinberg, MD, Chair
Daniel A. Low, PhD, Vice Chair, Division of Medical Physics
Joanne B. Weidhaas, MD, Vice Chair, Division of Molecular and Cellular Oncology
Percy P. Lee, MD, Vice Chair, Education
Steve P. Lee, MD, PhD, Vice Chair, VA Services

Overview

The Department of Radiation Oncology includes clinical divisions at the UCLA Medical Plaza and Reagan UCLA Medical Center, Santa Monica-UCLA Medical Center, and West Los Angeles VA Medical Center and includes the Division of Brachytherapy, Division of Molecular and Cellular Oncology, and Medical Radiation Physics. Labratory, clinical, and translational research are facilitated at all locations. The primary clinical mission of the department is the management of patients who have cancer. The purpose of using radiation therapy, rather than or in addition to surgery, is to preserve function and/or cosmesis while eliminating the cancer. Other activities include total body irradiation before bone marrow transplan-

tation, stereotactic body radiotherapy, brachytherapy, and stereotactic radiosurgery for A-V malformations, meningiomas, and malignant intracranial lesions. Research interests include clinical trials, radiation biology, radiation modifiers, molecular biology, immunology, and applied physics. Knowledge of the disease in question, the comparative efficacy of radiation therapy and other methods, radiation biology and pathophysiology, and the physical characteristics of various radiations is essential. The educational programs serve 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. Cullminating 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.

Radiological Sciences faculty information is available from the department.

RELIGION, STUDY OF
Interdepartmental Program
College of Letters and Sciences
378 Kaplan Hall
Box 951511
Los Angeles, CA 90095-1511

Study of Religion
310-206-8799

Carol A. Bakhos, PhD, Chair

Faculty Committee
Carol A. Bakhos, PhD (Near Eastern Languages and Cultures)
John P. Carriero, PhD (Philosophy)
Lowell Gallagher, PhD (English)
Jeffrey J. Guhin, PhD (Sociology)
Stephanie W. Jamison, PhD (Asian Languages and Cultures)

Eleanor K. Kaufman, PhD (Comparative Literature, English, French and Francophone Studies)
Terence D. Keel, PhD (African American Studies, Society and Genetcs)
Gina Konstantopoulos, PhD (Asian Languages and Cultures)
Diego Loukota Sanclemente, PhD (Asian Languages and Cultures)
Ronald W. Vroon, PhD (Slavic, East European, and Eurasian Languages and Cultures)
Luke B. Yarbrough, PhD (Near Eastern Languages and Cultures)

Overview

The Study of Religion major has the following learning outcomes:

- 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

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.

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.

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. During their senior year students must complete the capstone seminar, Study of Religion 191.

Policies

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. 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.

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 M11, 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.

M4. Introduction to History of Religions. (5) (Same as History M4J) Lecture, three hours; discussion, two hours. Surveys the major religious traditions, with emphasis on their beginnings and subsequent decisive changes in their respective historical developments and interactions. Equips students with intellectual tools for thinking analytically, empathetically, and comparatively about fascinating human phenomena identified as religious, such as sacred 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 M10J) Lecture, three hours; discussion, one hour. Judaism’s basic beliefs, institutions, and practices. Topics include development of biblical and rabbinic Judaism; concepts of god, sin, repentance, prayer, and the messiah; history of Talmud and synagogue; evolution of folk beliefs and year-cycle and lifecycle practices. P/NP or letter grading.

11. Religion in Los Angeles. (4) Lecture, four hours. Introduction to religious experiences in Los Angeles and its environs. Presentations, required readings, and (where possible) site visits to examine selected faiths and spiritual practices throughout Southern California. Would 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 are crucial reflection 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 interest to students taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M20. Introduction to Islam. (5) Formerly numbered M109.) (Same as Islamic Studies M20J) Lecture, three hours; discussion, one hour. Genesis of Islam, its doctrines, and practices, with readings from Qur’an and Hadith; schools of law and theology; piety and Sufism; Islamic law; Shi‘ism and Sunnism; Islamic art; Islamic architecture; Islamic science. P/NP or letter grading.

M40. Christianities East and West. (5) (Same as Slavic M40J) Lecture, three hours; discussion, one hour. Survey of major religious faiths in China, India, the Middle East, Africa, and Europe, their historical development and impact on world history and the modern world. P/NP or letter grading.

55. Spirit of Medicine. (5) Lecture, three hours; discussion, one hour. Examination of relationship between medicine, religion, and society; how religion is help or hindrance to health; and what health care might look like beyond biomedical model. Examination of historical entwining of religion, medicine, and society in Western antiquity to early modern period; disentanglement in Enlightenment to early 20th century; contemporary science and religious thought, and implications of those developments. P/NP or letter grading.

M60A. Introduction to Buddhism. (5) (Same as Asian 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.

M60B. Introduction to Chinese Religions. (5) (Same as Chinese M60B) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course M61W. Knowledge of Chinese not required. General survey of religious life in China, with emphasis on everyday religious practice over doctrine, and themes of power and authority in society. P/NP or letter grading.

M60C. Introduction to Korean Religions. (5) (Same as Korean M60C) Lecture, three hours; discussion, one hour. Knowledge of Korean languages not required. General survey of history of religions in Korea—Shamanism, Buddhism, Confucianism, Daoism, Christianity, Tonghak, and some new religions—with focus on collusion of religious doctrines, transcultural factors (language, education, economy), and social impacts. P/NP or letter grading.

M60D. Religion in Classical India: Introduction. (5) (Same as South Asian M60D) Lecture, three hours; discussion, one hour. Introduction to religions of classical India—Vedic, Brahmanical, Hindu, Jain, and Buddhism—paying equal attention to change and continuity, with emphasis on chronological development. P/NP or letter grading.

M60E. Religious Traditions in Southeast Asia. (4) (Same as Southeast Asian M60E) Lecture, three hours. Introduction to historical development and contemporary practice of religions in Southeast Asia. Examination of indigenous religious beliefs and major textually based religions introduced to region, including Hinduism, Buddhism, Islam, and Christianity. P/NP or letter grading.

M60W. Introduction to Buddhism. (5) (Same as Asian M60W) 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 M60A. Knowledge of Asian languages not required. General survey of Buddhist worldview and lifestyle, with focus on those religious doctrines and meditative practices most essential to various Asian traditions of Buddhism. P/NP or letter grading.

Satisfies Writing II requirement. Letter grading.

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

Religion, Study of / 763
Upper-Division Courses

101. History of Study of Religion. (4) Lecture, four hours. Examination 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 changing and contested 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 interacted with and affected scientific, literary, 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. Readings in English, Rise and development of Bábí and Bahá’í religions in context of 19th century Iran. Focus on personalities of Báb, Bábí and Bahá’í, and ‘Abdu’lláh Bahá’í. May be taken independently for credit. P/NP or letter grading.

M105B. Bahá’í Faith in Iran: Survey of Bahá’í Scriptures and Thought. (4) (Same as Iranian M105B.) Lecture, three hours. Readings in English, Analysis of major writings by Báb, Bábí and Bahá’í. May be taken independently for credit. P/NP or letter grading.

M105C. Bahá’í Faith in Iran: 20th-Century Iran and the Bahá’ís. (4) (Same as Iranian M105C.) Lecture, three hours. Focus on development of Bahá’í religion in 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 M106A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of early development of Islam with special attention to doctrine of nature of God, human responsibility, guidance, revelation and religious authority, duties of believers, ritual, law, sectarian movements, mysticism, and popular religion. P/NP or letter grading.

M107. Islam in West. (5) (Same as Arabic M107 and Islamic Studies M107.) Lecture, three hours; discussion, one hour. Study of recent developments, their origins, and their influence. May be repeated for credit. P/NP or letter grading.

M108. Qur’an. (4) (Same as Arabic M108.) Lecture, three hours. Introduction to Qur’an, 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 law, and Qur’an in contemporary discourses 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. Letter grading.

110. Religion and Violence. (4) Seminar, three hours; discussion, one hour. Exploration of capacity of religion to mobilize and legitimate violence. Materials include theoretical texts by Rene Girard, Walter Burkert, Jonson Z. Smith, and selected case studies dealing with religion and violence in India, Northern Ireland, Egypt, Lebanon, Israel, Palestine, Sri Lanka, and the U.S. Letter grading.

M115. Islam and Other Religions. (4) (Same as Islamic Studies M115.) Lecture, three hours; discussion, one hour. Students gain familiarity with historical cases and modes of interaction between Muslims and non-Muslims in plural societies. Focus on religious interaction and the concept of state. May be repeated for credit. P/NP grading.

118B. Kierkegaard and Philosophy of Religion. (4) (Same as Philosophy M118B.) Lecture, three to four hours; discussion (scheduled); Preparatory course. One philosophy course. Study of selected works of Kierkegaard on philosophy of religion, with emphasis on interpretation of texts. P/NP or letter grading.

120. Judaism, Christianity, and Islam: Comparative Approach. (4) (Seminar, three hours; discussion, one hour. Analysis of complex relationship of Judaism, Christianity, and Islam as living traditions whose historical origns, character, influence on world history, continue to shape spiritual, cultural, political, and social aspects of human civilization in 21st century. Letter grading.

123. Ancient Egyptian Religion. (5) (Same as Ancient Near East M123.) Lecture, three hours; discussion, one hour. Introduction to religious beliefs, practices, and sentiment of ancient Egypt to study Egyptian religious development, continuity to shape spiritual, political, cultural, and social aspects of human civilization in 21st century. Letter grading.

132. Anthropology and Other Religions. (5) (Same as Asian M132.) Lecture, three hours; discussion, one hour. Study of religions, including African, Native American, Asian, and indigenous American religious systems, with emphasis on history, development, and diversity among these traditions. Letter grading.

133. Biblical 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 sociocultural background from which these multiform texts emerged, and to explore major themes and consider variety of approaches to scripture. Development of appreciation for 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. Introduction to survey of various ancient Israelite religious beliefs and practices, their origins, and selected topics of special attention to diversity of religious practice in ancient Israel and Canaan 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. Examination of religious beliefs and practices as they can be known for women and men in particular historical periods and shape are shaped by these religious traditions, including discussions regarding racial practices, spirituality, sexuality, sexual renunciation, religious authority, marriage and family life, fertility, conceptions of body, public life, and/or literary representations of gender (including those of divine). May be repeated for credit, including feminist, literary, historical, sociological, and anthropological. P/NP or letter grading.

M155. Angels, Demons, and End of World: Magic, Mysticism, and Apocalypse in Jewish Traditions. (4) (Same as Jewish Studies M155.) Lecture, three hours. Focus on popular Jewish traditions of magic, mysticism, apocalypse, and various contours of Jewish textural and material traditions in antiquity. Examination of texts and objects from Hebrew Bible to modern discussions of Kabbalah and end of world, concentrating on Jewish antiquity. Discussion of texts, including Hebrew Bible, Dead Sea Scrolls, Talmud, Midrash, Tanna’dei, Babylonian Talmud, New Testament, and rabbinic and later Jewish literature. Discussion of sociohistorical context in order to decipher features and functions of religious concepts and representations of faith 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, television, radio, and electronic) as they have intersected in specific historical and cultural contexts. Examination of role of media in forms of and expressing religious ideas, practices, and identities. Topics may include religious subcultures, 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 methodological currents within media studies. P/NP or letter grading.


M181B. Japanese Buddhism. (4) (Same as Japanese CM160B.) 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.
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 1A, 1B, 14B, 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 science 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 filling a petition to enter the minor.

The Minor
Required Lower-Division Courses (6 to 7 units): Science Education 10XP and Earth, Planetary, and Space Sciences 1 (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 one and no more than two courses selected from Education M102, M103, 104A, 107A, 107B, M108, C111, 123, 126, M131A, 132, 133.

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 10XP, 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
10XP. Classroom Practices in Elementary School Science. Seminar, three hours; fieldwork, three hours. Recommended requisite: course 1SL. Introduction for prospective science teachers to field of elementary education and teaching and learning of science in elementary school classrooms. Pairs of students are placed in local elementary school classrooms to observe, participate, and assist mentor teachers in instruction. Discussion of learning in elementary school culture, cognitive development of students at this level, and best means to teach appropriate science concepts at this level. Letter grading.

100XP. Classroom Practices in Middle School Science. Seminar, three hours; fieldwork, three hours. Recommended requisite: course 1SL. Introduction for prospective science teachers to field of secondary education and teaching and learning of science in middle school classrooms. Pairs of students are placed in local middle school classrooms to observe, participate, and assist mentor teachers in instruction. Discussion of learning in middle school culture, cognitive development of students at this level, and best means to teach appropriate science concepts at this level. P/NP grading.

15XP. Exploration of K-12 Classroom Practices in Science Education. Seminar, three hours; fieldwork, two hours. Introduction to field of K-12 science education including equity and access, pedagogy, and career exploration. Examination of broad range of student developmental levels and science learning progressions from kindergarten through high school. Pairs of students are placed in local elementary, middle, or high school classrooms to observe, participate, and assist mentor teachers in instruction. Students engage in fieldwork lesson study including identifying Next Generation Science Standards (NGSS), lesson development, lesson implementation, and lesson reflection. P/NP grading.

19. Fiat Lux Freshman Seminars. Seminar, one hour. Discussion of and critical thinking about topics in current, intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. Letter 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 through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated with honors credit for eligible students. 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.

Upper-Division Courses
100XP. Classroom Practices in High School Science. Seminar, three hours; service learning fieldwork, three hours. Recommended requisite: course 1SL or 10SL. Introduction for prospective science teachers to field of secondary education and teaching and learning of science in high school classrooms. Pairs of students are placed in local high school classrooms to observe, participate, and assist mentor teachers in instruction. Discussion of learning in high school culture, cognitive development of students at this level, and best means to teach appropriate science concepts at this level. Letter grading.

189. Advanced Honors Seminars. 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.

SLAVIC, EAST EUROPEAN, AND EURASIAN LANGUAGES AND CULTURES
College of Letters and Science
322 Kaplan Hall
Box 951502
Los Angeles, CA 90095-1502

Slavic, East European, and Eurasian Languages and Cultures
310-825-3856
Department e-mail
Ronald W. Vroon, PhD, Chair

Faculty Roster
Professors
Roman Koropeckyj, PhD
Olivia Lenhoff, PhD
Igor Pilstchikov, PhD
Ronald W. Vroon, PhD (Vladimir and Lydia Markov Professor of Russian Literature)
Professors Emeriti
Henning Andersen, PhD
Peter C. Hodgson, Jr., PhD
Emily R. Klenin, PhD
Aleksandr L. Ospovat, PhD

Assistant Professor
Vadim Shneyder, PhD

Senior Lecturers
Susan C. Kresin, PhD
Anna Kudyma, PhD

Lecturers
Melinda Borbely, MA
Yelena Furman, PhD
Georgiana Galateanu, PhD
Viktorija 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 make-up 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

Preparation for the Major
Required: Central and East European Studies 91 or Slavic 90.

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 course, 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.

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, 187A through 187M, History 120A through 120D, Hungarian 187A through 187M, Polish 152A, 152B, 152C, 187A through 187M, Romanian 152, 187A through 187M, Russian C124G, Serbian/Croatian 187A through 187M, Ukrainian 152, 187A through 187M; one of the three courses may be selected from Russian M118, 119, 120, C124C, C124D, C124N, C124T.

During their senior year, students must also take Slavic 191TA, 191TB, and 191TC in which they complete a capstone senior thesis.

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
The honors program is designed for exceptional departmental majors who wish to complete a research project that culminates in an honors thesis.

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 honors program is a three-term sequence (Slavic 198A, 198B, 198C), taken in addition to requirements for the major. 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 re
requirement). Students are required to use a Slavic, east European, or Eurasian language in their research, with the scope of the language 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 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 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

Preparation for the Major

Required: Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

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.

The Major


During their senior year, students must also take Slavic 191TA, 191TB, and 191TC in which they complete a capstone senior thesis. 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

The honors program is designed for exceptional departmental majors who wish to complete a research project that culminates in an honors thesis.

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 honors program is a three-term sequence (Slavic 198A, 198B, 198C), taken in addition to requirements for the major. 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

Preparation for the Major
Required: Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

Transfer Students
Transfer applicants to the Russian Studies major with 90 or more units must complete the following introductory courses prior to admission at 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.

The Major
Required: Ten courses (44 to 47 units), including (1) three Russian language courses selected from Russian 100A, 100B, 100C, 101A, 101B, 101C, 102A, 102B, 102C, 103A, 103B, 103C, 107A, 107B, 107C, 108 (consult with the undergraduate adviser for appropriate placement); (2) three additional Russian language and/or literature courses selected from 102A, 102B, 102C, 103A, 103B, 103C, 107A, 107B, 107C, 108 (consult with the undergraduate adviser for appropriate placement); (3) four related fields courses selected from History M127A through 127D, Political Science 128A, 128B, 156A, Slavic CM114.

During their senior year, students must also take Slavic 191TA, 191TB, 191TC in which they complete a capstone senior thesis.

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
The honors program is designed for exceptional departmental majors who wish to complete a research project that culminates in an honors thesis.

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 honors program is a three-term sequence (Slavic 198A, 198B, 198C), taken in addition to requirements for the major. 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 highest 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 3.5 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 departmental counselor in 322B Kaplan Hall, 310-825-3856.

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 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 (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 M120, 125, 126, Czech 155, History 120A through 120D, Polish 152A, 152B, 152C, Romanian 152, Russian C124G, 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 102A, 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 C124G, 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 3 or 10 or equivalent proficiency, one course from 25, 25W, 30, 31, 32, 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 courses in Russian 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 Russian language and literature courses, including at least two from Russian M118, 119, 120, 130A, 130B, 130C, 140A through 140D.

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 Russia-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.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

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.

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 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.
Upper-Division Courses

101A-101B-101C. Introduction to Czech Language and Culture. (5-5-5) Lecture, five hours. Course 101A is recommended preparation for 101B. Each course is recommended preparation for 101C. Each course may be waived with consent of instructor. Credit/No Credit grading.

102A-102B-102C. Advanced Czech. (4-4-4) Lecture, three hours. Recommended preparation: course 101C (may be waived with consent of instructor). Credit/No Credit grading.


155. Survey of Czech Literature from Middle Ages to Present. (4) Lecture, three hours. Lectures and readings in English or letter grading.

187A. Advanced Tutorial Instruction in Czech. (2) Tutorial, one hour; laboratory, one hour. Enforced requisites: course 102C or Czech placement test. Tutorial and guided independent study of advanced Czech: advanced conversation, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. Credit/No Credit grading.

187B-187M. Advanced Tutorial Instruction in Czech. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Czech placement test. Tutorial and guided independent study of advanced Czech: advanced conversation, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. Credit/No Credit 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 applied toward honors credit for eligible students. Honors content noted on transcript. Credit/No Credit 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 specialized issues and approaches in history, structure, and themes of one or more literary traditions of central and eastern Europe. Course 189HC is for topics not covered in specific term. May be repeated for credit with topic change. Credit/No Credit 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. Credit/No Credit 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. Individual contract required; consult Undergraduate Research Center. May be repeated. Credit/No Credit grading.

120. Cold War Central European Culture. (4) Lecture, three hours. Examination of cold war Central European culture through prisms of prose fiction, 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. Credit/No Credit grading.

127. Central European Culture after Fall of Communism. (4) Lecture, three hours. Examination of Central and East European culture through literature, visual arts, music, film, and cultural artifacts from 1989 to present. Analysis of Polish, Czech, Slovak, Romanian, Hungarian, former Yugoslav, and East German writers, essayists, filmakers, musicians, visual artists, and graphic novelists in order to reflect on nature of political and societal changes after fall of communism. Credit/No Credit grading.

130. Balkan Cultures in Film and Literature. (4) Lecture, three hours. Examination of cultural and linguistic issues in Western Balkans (Bosnia, Croatia, Serbia) through literature, film, music, and visual arts. Examination of interaction of politics and culture (language, religion, literature, film, and mass media) before and after breakup of Yugoslav multinational, literat-ure, and music. All texts and films are in English translation. No prior knowledge of Western Balkan languages is required. Credit/No Credit grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Recommended preparation for 101C. Each course may be waived with consent of instructor. Credit/No Credit grading.


155. Survey of Czech Literature from Middle Ages to Present. (4) Lecture, three hours. Lectures and readings in English or letter grading.

187A. Advanced Tutorial Instruction in Czech. (2) Tutorial, one hour; laboratory, one hour. Enforced requisites: course 102C or Czech placement test. Tutorial and guided independent study of advanced Czech: advanced conversation, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. Credit/No Credit grading.

187B-187M. Advanced Tutorial Instruction in Czech. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Czech placement test. Tutorial and guided independent study of advanced Czech: advanced conversation, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. Credit/No Credit 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 applied toward honors credit for eligible students. Honors content noted on transcript. Credit/No Credit 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 specialized issues and approaches in history, structure, and themes of one or more literary traditions of central and eastern Europe. Course 189HC is for topics not covered in specific term. May be repeated for credit with topic change. Credit/No Credit 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. Credit/No Credit 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. Individual contract required; consult Undergraduate Research Center. May be repeated. Credit/No Credit grading.

120. Cold War Central European Culture. (4) Lecture, three hours. Examination of cold war Central European culture through prisms of prose fiction, 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. Credit/No Credit grading.

127. Central European Culture after Fall of Communism. (4) Lecture, three hours. Examination of Central and East European culture through literature, visual arts, music, film, and cultural artifacts from 1989 to present. Analysis of Polish, Czech, Slovak, Romanian, Hungarian, former Yugoslav, and East German writers, essayists, filmakers, musicians, visual artists, and graphic novelists in order to reflect on nature of political and societal changes after fall of communism. Credit/No Credit grading.

130. Balkan Cultures in Film and Literature. (4) Lecture, three hours. Examination of cultural and linguistic issues in Western Balkans (Bosnia, Croatia, Serbia) through literature, film, music, and visual arts. Examination of interaction of politics and culture (language, religion, literature, film, and mass media) before and after breakup of Yugoslav multinational, literature, and music. All texts and films are in English translation. No prior knowledge of Western Balkan languages is required. Credit/No Credit grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Recommended preparation for 101C. Each course may be waived with consent of instructor. Credit/No Credit grading.


155. Survey of Czech Literature from Middle Ages to Present. (4) Lecture, three hours. Lectures and readings in English or letter grading.

187A. Advanced Tutorial Instruction in Czech. (2) Tutorial, one hour; laboratory, one hour. Enforced requisites: course 102C or Czech placement test. Tutorial and guided independent study of advanced Czech: advanced conversation, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. Credit/No Credit grading.

187B-187M. Advanced Tutorial Instruction in Czech. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Czech placement test. Tutorial and guided independent study of advanced Czech: advanced conversation, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. Credit/No Credit 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.

19A. 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.

19B. 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

101A-101B-101C. Elementary Polish. (4–4–4) Lecture, three to four hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be waived with consent of instructor. Introduction to grammar; instruction in speaking, listening, reading, and writing. P/NP or letter grading. Preparation for 101B, which is recommended preparation for 102C. Each course may be waived with consent of instructor. P/NP or letter grading.

102A-102B-102C. Advanced Hungarian. (4–4–4) Lecture, three 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. 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-187TM. Advanced Tutorial Instruction in Hungarian. (2) 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.

187V. Individual Studies in Hungarian. (2 to 4) 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 be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. 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. Letter grading.

189B. 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.

189C. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. 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 Polish. (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 Polish language. P/NP or letter grading.

102A-102B-102C. Advanced Polish. (4–4–4) Lecture, three 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. P/NP or letter grading.

152A-152B-152C. Survey of Polish Literature. (4–4–4) Lecture, three hours. Lectures and readings in English. Letter grading. Course 152A. From the Middle Ages to Neoclassicism; 152B. Reimagining a Nation. Readings in 19th-century Polish literature and culture. 152C. Dreaming, Mocking, and Writing “as if.” Readings in modern Polish literature and culture.

1C180. Variable Topics in Polish Literature. (4) Seminar, three hours. Reading knowledge of Polish recommended but not required. Topics include major writers, genres, or periods. May be repeated for credit with topic change. Concurrent or scheduled course C280. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Polish. (2) Tutorial, one hour; laboratory, one hour. Preparation: two years of Polish and/or Polish placement test. Tutorial and guided independent study of advanced Polish: 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-187TM. Advanced Tutorial Instruction in Polish. (2) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Polish placement test. Tutorial and guided independent study of advanced Polish: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

198A. Advanced Polish 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.

198CH. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. 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.
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 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.

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) Tutorial (supervised research or other scholarly work), one hour 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 12 units (excluding this course). P/NP or letter 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 101C. 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: 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 Romanian. (2 each) Lecture, one hour; laboratory, one hour; preparation: prior course in sequence 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. 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.

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. Intermediate Russian. (5) Lecture, 19 hours. Intensive basic course in Russian language equivalent to courses 1, 2, 3. P/NP or letter grading.

15A-15B. Accelerated Elementary Russian. (8–7) Recitation, five hours; laboratory, two hours. Material of first-year Russian course to be covered in two terms, with extensive use of language laboratory and the Russian Room. 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.


25. Great Russian Novel. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 25W. Designed for nonmajors. Knowledge of Russian not required. Study of major works by great 19th-century Russian novelists. P/NP or letter grading.


30. 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 of national culture is viewed through the eyes of another. P/NP or letter grading.

31. Introduction to Russian Film. (5) Lecture, three hours; discussion, one hour; film screening, two hours. Key directors, 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 narratives of history and identity, how cinema has served interests of state, and how it has defied them. P/NP 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 redefinition of Russian heritage in most former Soviet territories, key distinctions in humanities have become unclear, including fundamental confusion between limits of Slavic and Near Eastern studies. Examination of relations of Russia’s culture to its borders: Caucasus, Central Asia, China, and Japan. 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. 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.

90A. 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 90BW. 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. Requisite: English Composition 3. Not open for credit to students with credit for course 90BW. 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 addressing 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.
Upper-Division Courses

100A-100B-100C. Literacy in Russian. (4–4–4) Lecture, three hours, Course 100A or Russian placement test is enforced requisite to 100B; course 100B or Russian placement test is enforced requisite to 100C. For students majoring in Russian but having difficulty with reading and writing. Focus on improving reading and 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 101 or Russian placement test. 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, including use of Internet. 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 requisite to 103B, which is not requisite to 103C. Improvement of oral and written language skills, emphasizing correct and diversified use of language and addressing individual grammatical difficulties. May be repeated for credit with topic and/or instructor change. P/NP or letter grading. 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 prerequisites: Russian 102 or Russian placement test. Exploration of texts and media in social sciences and culture, with emphasis on press, television, 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) Lecture, three hours. Discussion of economics and business in Russia, language of advertising, business and official documents. P/NP or letter grading.


111A-111B-111C. Russian Flagship Program Abroad: Superior Russian. (5–5–5) Lecture, three hours. Enforced requisite: course 110 or equivalent coursework as determined by department. Course 111A is enforced requisite to 111B, which is enforced requisite to 111C. Taught in Russian. Designed for students with advanced proficiency. Development of skills in reading, conversation, grammar. Acquisition of advanced syntactical structures and expansion of lexical repertoire. Emphasis on formal 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 exposure to Russian cultural and intellectual norms. Readings and essays, with emphasis on formal and academic writing. Letter grading.

113A-113B-113C. Flagship Program Abroad: Professional and Academic Russian and Experiential Learning. (5–5–5) Lecture, three hours. Enforced requisite: course 110 or 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. Preparations 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.

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. Appennine principalities and towns; Mongol invasion; unification of Russian state by Muscovy, Autocracy and its Servitors; serfdom. P/NP or letter grading.

119. Golden Age and Great Realists. (4) Lecture, three hours. Designed for juniors/seniors. Russian majors are advised to take this course in their sophomore year. Lectures and readings in English. Survey of 19th-century Russian literature (Pushkin, Gogol, Tolstoy, Dostoevsky, Chekhov). Emphasis on political, and social contexts. P/NP or letter grading.

120. Literature and Revolution. (4) Lecture, three hours. Designed for juniors/seniors. Russian majors are advised to take this course in their sophomore year. Lectures and readings in English. Major works of the 20th century (Belyi, Pasternak, Bulgakov, Solzhenitsyn, and others) from prerevolutionary avant-garde to the present. P/NP or letter grading.

121. Russian Pop Culture. (5) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Overview of Russian popular culture today, with examination of status of Russia’s class(less) traditions for artists and audiences working in modern Russia. Death of one tradition and attempts at creation of another lead away from written word into neighboring forms of expression, primarily visual. Consideration of Russian narratives, story-telling, cinema, television, animation, music, video, and Internet. Letter grading.

122. Siberia. (5) Lecture, three hours. Introductory survey in which current cultural and ecological issues are examined within the historical background, including analysis of Siberian human geography before first contact with European colonizers and development of modes of interaction among different cultural groups. Reading in English of selection of literary works by well-known 20th-century Siberian writers whose texts serve as locus for closer examination of Siberian regional literary culture and ecological network within which it exists. Letter grading.


C124D. Studies in Russian Literature: Dostoevsky. (4) Lecture, three hours. Lectures and readings in English. In-depth reading of major fictional works such as Crime and Punishment, Notes from the Underground, and The Brothers Karamazov. Concurrently scheduled with course C224D. P/NP or letter grading.


C124N. 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 C277. P/NP or 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. Emphasis on short stories and diaries from the 19th century 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 in this tradition as compared with those found in works of contemporary male writers. P/NP or letter grading.


129. Animation and Music Video. (5) 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 emphases 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 retroactively to multiple cultures of one enthralling 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 reflect change and social chance much better than ponderous grandeur of feature-length cinema. Letter grading.

130A-130B-130C. Russian Poetry. (4–4–4) Lecture, three hours. Preparation: third-year Russian recommended. Lectures and readings in Russian. May be repeated for credit with topic and/or instructor change. 130A. Introduction to Analysis of Russian Poetry. Role of biography, cultural subtexts, rhetoric, and form in interpreting poetic texts. 130B. Poetry of Russian Neoclassicism, Romanticism, and Realism. Major works of late 18th and 19th centuries in their historical and cultural contexts. 130C. Russian Poetry in the 20th Century. Major poetic schools from early modernism (symbolism, futurism, acmeism) to contemporary avant-garde.

131. History of Russian Cinema. (4) Lecture, three hours. Overview of most popular art form in world’s largest nation to show how cinema struggled under in capitalist Russia, how moviemaking on other side of world departed from path marked out by Hollywood and London, how its form of nationwide persuasion, relationship between word and image in those acts of persuasion, how even frightening dogma cannot escape importance of audience desire(s), how notion of widely shared experience as refuge from both capitalism and communism, and what values of world’s biggest country are. Role of language in self-definition, is selfhood verbal or visual matter? P/NP or 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 and their underlying markets, and yesterday’s tragic abuses. Development of media form(s) and content across various times, places, and cultures, with special attention to Slavic phenomena. Letter grading.


C170. Russian Folklore. (3 to 5) Lecture, three hours. Lectures and readings in English. 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: prior 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 course. 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 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: Russian Literature. (4) Seminar, three hours. Requisite: course 6. Readings and analysis of selected authors; curating seminar paper required. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

Graduate Courses

201A-201B-201C. Russian: Vocabulary, Pronunciation, Style. (4-4-4) Lecture, three hours. Requisite: course 102C. Conducted in Russian. Reading 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 Rus’. (4) Lecture, three hours. Requisites for MA (literature). Survey of the literature from its beginning through the Kievan and Muscovite periods up to end of the 17th century.


212A-212B. 19th-Century Russian Literature. (4-4) Lecture, three hours. S/U or letter grading.


212B. Age of Realism. Lecture, three hours. Requisites for MA (literature) to examine the critical and psychological realism, beginning with early works of Turgenev, Goncharov, and Dostoevsky, moving to major novels of Tolstoy, Dostoevsky, and Saltykov-Shchedrin, and concluding with works of the presymbolist period, especially short stories of Chekhov. S/U or letter grading.

213A. 20th-Century Russian Literature, 1890 to 1929. (4) Lecture, three hours. Requisites 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 by Blok, Bely, Khlebnikov, Pasternak, Platonov, and others. S/U or letter grading.

213B. 20th-Century Russian Literature, 1930 to 1989. (4) Lecture, three hours. Requisites for MA (literature). Lectures and readings in major literary trends, including socialist realism, the Thaw, and second- and third-wave emigration. S/U or letter grading.


C224D. Studies in Russian Literature: Dostoevsky. (4) Lecture, three hours. Lectures and readings in English. In-depth 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.


C224P. Studies in Russian Literature: Pushkin. (4) Lecture, three hours. Lectures and readings in English. Major works in all genres, including lyric poetry, narrative verse, letters, plays, prose fiction, and selected letters. Concurrently scheduled with course C124P. S/U or letter grading.

C224T. Studies in Russian Literature: Tolstoy. (4) Lecture, three hours. Lectures and readings in English. Early and late stories and novels, excerpts from the diaries and a major novel such as War and Peace or Anna Karenina. Concurrently scheduled with course C214T. S/U or letter grading.

C240. Russian Folklore. (3 to 5) Lecture, three hours. Lectures and readings in English. General introduction to Russian folklore, including survey of genres and related folkloric phenomena. Concurrently scheduled with course C170. 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 century. Lectures and discussions of selected authors.

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.

Slavic, East European, and Eurasian Languages and Cultures / 775

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 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.

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 and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

999HC. 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. Letter grading.
M02. Visible Language: Study of Writing. (5) (Same as Asian M20, Indo-European Studies M20, Near Eastern Languages M20, and Southeast Asian M20) Lecture, three hours; discussion, one hour. Consideration of concrete means of language representation in writing systems. Basic characteristics of early and, in case of China and Mesoamerica, their evident isolation mark these centers as loci of independent developments in writing. Basic characteristics of early pictographic writing systems, and presentation of conceptual basis of semi-otmic 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.

M40. Christianity East and West. (5) As Religion M40.) Lecture, three hours; discussion, one hour. Survey of three major historical branches of Christianity—Eastern and Oriental Orthodoxy, Roman Catholicism, and Protestantism, contrasting how history, denomination, and cultural factors play a role in maintenance of language used in any given ethnic group. Familiarization with discipline and methodology of early non-Western writing systems. Earliest representations of language evidence of mastery of subject matter required. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

M89. 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.

M98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lecture or 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 credit with consent of instructor. Contract required. Letter grading.

MM114. Teaching and Learning of Heritage Languages. (Same as Reasian CM124 and Near Eastern Languages CM114.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLLs) 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. May be repeated for credit with topic change. 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. May be repeated for credit with topic change. P/NP or letter grading.

188B. Languages of Eastern Europe and Eurasia. (4) Three lecture, 90 minutes; two hours. Survey of five or more sponsored experimental or temporary courses, such as those taught by resident or visiting faculty members, introducing less commonly taught Slavic, East European or Eurasian language. May be repeated for credit with change in language or 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.

191TA. Senior Capstone Thesis in Slavic Languages and Literatures. (2) Seminar, three hours. Limited to senior departmental majors. Planning and compilation 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. (2-2) Seminar, three hours. Course 191TA is enforced requisite to 191TB, which is enforced requisite to 191TC. Limited to senior departmental majors. Oral and written presentations required. Letter grading.

197. Individual Studies in Slavic Languages and Literatures. (2 to 4) Tutorial, to be arranged. Limited to individual students. 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.

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 discuss readings. Individual contract required. Letter grading.

198B. Honors Research in Slavic, East European, and Eurasian Languages and Literatures. (4) Tutorial, three hours. Requisite: 198A. Limited to senior departmental honors program students. Research and writing field of Slavic, East European, and Eurasian languages and literatures. Topics chosen through consultation with faculty mentor. Students meet regularly with faculty adviser to report on their research, discuss drafts of thesis chapters, and revise writing. Individual contract required. Letter grading.

199. 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.

Graduate Courses

200A. Literary Proseminar. (4) Seminar, three hours. Required for MA (literature). Designed to prepare incoming scholars 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 Old Church Slavic. (4) Lecture, three hours. Required for MA (linguistics, literature). Introduction to phonology and grammar; readings.


CM214. Teaching and Learning of Heritage Languages. (4) (Same as Asian CM224 and Near Eastern Languages CM214.) 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 HLLs and HLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLLs, particularly HL groups most represented among UCLA students; institutional and instructor attitudes toward HLLs; impact of immigration and expectations on curriculum and teaching approaches; similarities and differences between HLLs and foreign language learners (FLLs) regarding teaching methods and materials; overview of approaches 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. Concurrently scheduled with course CM114. S/U or letter grading.

M229. Introduction to Slavic Bibliography. (2) (Same as Information Studies M229.) Introduction to Slavic and East European bibliography for the humanitites and social sciences. Emphasis to be determined by requirements and background of enrolled 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; compilation of materials. S/U or letter grading.

230A-230B-230C. Topics in Comparative Slavic Literature. (4–4–4) Lecture, three hours. Recommended preparation: upper-division courses in Czech, Polish, Russian, or East Slavic literatures. Two terms required for PhD (literature). May be repeated for credit with consent of instructor and graduate adviser. 230A. Middle Ages through Baroque; 230B. Classicism to Romanticism; 230C. Realism to Modernism.


281. Seminar: Slavic Linguistics. (4) Seminar, three hours. Selected topics in comparative and historical Slavic linguistics. May be repeated for credit with consent of instructor and graduate adviser.

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.

395. Teaching Slavic Languages at College Level. (4) Seminar, 90 minutes; discussion, 90 minutes. Designed for graduate students. Theory and practice of language teaching. Discussion of contemporary language teaching methodology as well as problems of pedagogical grammar. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.


Ukrainian

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. All sections held by same professor. May be repeated for credit with topic change. Concurrently scheduled with course C280. 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 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 contract required; consult Undergraduate Research Center. May be repeated. P/NP 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. Basic courses in Ukrainian language, 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). Course 102A is recommended preparation for 102B, which is recommended preparation for 102C. Each course may be waived with consent of instructor. Development of advanced listening, speaking, reading, and writing skills. 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 Kotyaryevsky, Shevchenko, Franko, Ukraina, 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: prior course in Ukrainian or Ukrainian placement test. Tutorial and guided independent study of advanced Ukrainian: 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 Ukrainian. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in Ukrainian or Ukrainian placement test. Tutorial and guided independent study of advanced Ukrainian: 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 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

Andrea Apter, PhD (Anthropology, History)
Robin L.H. Derby, PhD (History)
Tamar Kremer-Sadik, PhD (Anthropology)
Davide Panagia, PhD (Political Science)
Sarah Abrevaya Stein, PhD (History)
James W. Stigler, PhD (Anthropology, Psychology)
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

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 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 for credit. S/U grading.

100A. Social Science in Context: Perspectives and Methods in Study of Culture and Society. (4) Lecture, eight hours (four weeks). Offered as part of summer UCLA Travel Study Program to New Zealand. Examination of life in Aotearoa, also known as New Zealand. Focus on historical events and social processes as well as axiological differences such as ethnicity and class and ways in which these and others are expected to continue to influence cultural, political, social structures, and norms and values in New Zealand. Students learn to employ social science theories and concepts to gain deeper understanding of issues New Zealand faces. Through readings, classroom discussions, field trips, which provide valuable firsthand experiences, local guest speakers, and unique opportunity of exploring forces that shape society and culture in context of one of most celebrated democracies in world, students gain greater insight into social and political relations and their impact in world, including U.S. Letter grading.

188. Academic Innovation in Industry. (1) Lecture, one hour (six weeks). Exploration of how to apply disciplinary knowledge to industry problems and technology. Students examine how to create novel ways of meeting challenges, build network intelligence, and communication their ideas and expertise. Students also learn problem-solving techniques like lean startup approach. Use case study approach to show how social scientists have connected with recent technology trends to produce impactful innovation. P/NP grading.

Course Grades
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.

400A–400B. Social Science Research and Perspectives. (4–4) Seminar, three hours. Exploration of contribution of social science research to addressing complex social problems. Students engage with a wide array of disciplinary perspectives, research methods, and analytical approaches. Emphasis placed on development of multidisciplinary, integrative approaches to social science research. Students learn how to identify and frame social problem; how to identify, interpret, and evaluate relevant research; and how to synthesize research findings generated from different theoretical, methodological, and disciplinary approaches. Development of essential research, writing, and analytic skills. Letter grading.

401. Qualitative Social Science Research Methods. (4) Seminar, three hours. Introduction to range of qualitative approaches used in social science research and analysis through combination of theoretical discussions and practical experience. Examination of practical and epistemological considerations for qualitative research in workshop format. Covers practical workings of qualitative research: gathering data through interviews, focus groups, observation, questionnaires, and archival research; strategies for coding, identifying, and analyzing qualitative data; and evaluating and presenting qualitative research. Prepares students to undertake research using qualitative methods through collaborative class research project. Letter grading.

402. Qualitative Data Analysis in Social Science. (4) Lecture, two and one half hours; discussion, one hour. Introduction to fundamentals of data analysis and statistics, focusing on application of statistical methods in social sciences research. Students develop skills and strategies for evaluating research evidence, and for comparing and synthesizing results of studies that adopt different research methodologies. Descriptive statistics, inferential statistics, probability, statistical tests, correlation, and causation, and regression analysis. Other topics include organizing quantitative data (e.g., tables, graphs), methods for describing data with respect to central tendency, dispersion, and association. At course end students should be able to perform data analysis using appropriate software, to interpret results, and to make critical evaluations of quantitative social science research. Letter grading.

403. Quantitative Evidence and Analysis in Social Science. (4) Seminar, three hours; laboratory, one hour. Advanced training in data analysis and statistics, and training in strategies for evaluating research evidence and comparing results of studies that adopt various research methodologies. Students identify research questions and topics for research project. Students conduct small-scale research projects in collaboration with local community organizations. Letter grading.

404. Research Design in Social Science. (4) Lecture, three hours. Introduction to main components of research projects, focusing on research questions, theoretical frameworks, and research design. Students design feasible research project. Letter grading.

410. Engaged Social Science. (4) Seminar, three hours. Exploration of theory and practice of engaged social science, tracing its historical development from policy studies and related fields to more activist modalities of critique and intervention. Drawing on classic and contemporary studies in 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. Work-study in which students develop research and analysis skills related to establishing research data analysis plan. Students engage in intensive peer-review process, working collaboratively in small groups. Students develop research proposal from lecture, teaching assistants, and faculty readers, 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, 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 at end of quarter. Letter grading.

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 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 plan, 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 strengths. 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.

**M460A. Voting Rights Policy and Law I.** (4) (Same as Public Policy M296A) Clinic, two hours; field work, one hour. Collaborative course taught from perspective of social science research, civil rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus 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 learn and implement in-depth study of methodology and statistical approach to document presence or absence of vote dilution or vote denial in different jurisdictions. Discussion of history and legal principles of federal Voting Rights Act and California Voting Rights Act led by leading voting rights attorney. May be repeated for credit. S/U or letter grading.

**M460B. Voting Rights Policy and Law II.** (4) (Same as Public Policy M296B) Clinic, three hours. Required: course M460A. Collaborative course taught from perspective of social science research, civil rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus 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 lawsuit. 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 Act decisions, review accompanying expert reports, and work in teams on aspects of lawsuit. S/U or letter grading.

**M460C. Voting Rights Policy and Law III.** (4) (Same as Public Policy M296C) Clinic, three hours. Required: courses M460A, M460B. Collaborative course taught from perspective of social science research, civil rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus 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 reports, legal argumentation and filings, depositions, and other case-related matters. S/U or 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. Guhn, PhD, Chair

**Faculty Committee**

Cécile Guédon, PhD (European Languages and Transcultural Studies)

Jeffrey J. Guhn, PhD (Sociology)

Barbara Herman, MA, PhD (Law, Philosophy)

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 Locke, DesCartes, de Beauvoir, Du Bois, Freud, Hobbes, Locke, Marx, Mill, Nietzsche, Rousseau, Said, Smith, Weber, and Wallisnecotn. 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.

Instructing 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.

**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.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division 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.

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 Honors. 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 190B. 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. Individual contract required. Letter grading.

199A-199B. Directed Research or Senior Thesis in Social Thought I, II (4–4) Tutorial, to be arranged. Corequisite for course 199A: course 199A; for 199B: course 199B. Limited to juniors/seniors. Required of students in Social Thought minor. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Social Welfare

Meyer and Renee Luskin School of Public Affairs

3357 Public Affairs Building
Box 951656
Los Angeles, CA 90095–1656

Social Welfare
310-825-2892

Laura S. Abrams, PhD, Chair and Director, MSW Program
Todd M. Franke, PhD, Chair, Doctoral Program
Gerardo P. Laviña, LCSW, MSW, Director, Field Education

Faculty Roster

Professors
Laura S. Abrams, PhD
Ron Avi Astor, MSW, PhD (Marjorie Crump Professor of Social Welfare)
David Cohen, PhD

Todd M. Franke, PhD
Mark S. Kaplan, DrPH
Ananyo Roy, PhD (Meyer and Renee Luskin Professor of Inequality and Democracy)
Fernando M. Torres-Gil, PhD

Professors Emeriti
Rosina M. Becerra, PhD
A.E. Benjamin, PhD
Diane S. de Andia, PhD
Alfreda P. Iglehart, PhD
Aurora P. Jackson, PhD
Stuart A. Kirk, DSW (Marjorie Crump Professor Emeritus of Social Welfare)
James E. Lubben, MSW, MPH, DSW
Ailee Moon, PhD
Alex J. Norman, DSW
Jack Rothman, PhD
Robert F. Schilling, PhD
Leonard Schneiderman, PhD

Associate Professors
Ian W. Holloway, MSW, MPH, PhD
Lené F. Levy-Stroms, MPH, PhD
Carlos E. Santos, PhD
Laura Wray-Lake, PhD

Assistant Professors
Leyla Karimli, PhD
Brian T.H. Keum, MA, PhD
Judith L. Perrigo, LCSW, PhD
Amy E. Ritterbusch, PhD
Cindy C. Sangalang, MSW, PhD
Latoya A. Small, PhD
Margaret M.C. Thomas, PhD
Lee Ann S. Wang, PhD

Adjunct Professors
Helmut K. Anheier, PhD
Jorja J. Leap, PhD

Adjunct Assistant Professors
Khush E. Cooper, MSW, PhD
Ayako Miyashita Ochoa, JD

Fieldwork Consultants
Laura Alongi, LCSW
Larthia R. Dunham, MSW
Woo K. (Toby) Hur, MSW
Tranishia L. James, LCSW
Hector R. Palencia, LCSW
Michelle Talley, MSW

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

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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. Directed seminar 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.

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 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 social welfare programs and policies guiding them, with emphasis on analysis of policy development/issues related to provision of social welfare services. Study of historical and current response 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. Lecture: three hours; outside study, eight hours. Didactic component with focus on development of basic skills in the areas of research. Students select one field of observation experience (major) from a number of field settings. P/NP or letter grading.

105. Social Welfare Policy in Modern America: Historical Perspectives. (4) Seminar, three hours; discussion, one hour; outside study, eight hours. Historical overview of American social policy dealing with three core societal problems: poverty, sickness, and joblessness. Programs developed to address these problems have typically been public insurance programs or cash transfers such as unemployment insurance, welfare, and Social Security. Collectively these programs are known as the welfare state; examination of origins of the U.S. welfare state, its development over time, and features that make it distinctive as compared to welfare states in other nations. Letter grading.

106. Research Seminar and Field Observation: Social Welfare. (4) Seminar, three hours; discussion, one hour; outside study, eight hours. Didactic component with focus on development of basic skills in the areas of research. Students select one field of observation experience (major) from a number of field settings. P/NP or letter grading.

110. Field Practicum: Social Welfare. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 106b. In field practicum students are placed in a social service agency where they combine observation of agency functions with participation in specific agency tasks and roles under instructional supervision of an agency mentor and a UCLA faculty member. P/NP or letter grading.

118. Biomedical, Social, and Policy Frontiers in Human Aging. (5) (Same as Gerontology M108 and Public Affairs M130.) Lecture, four hours. Limited to juniors/seniors. Examining social structures, social and biological processes, and aging issues where they 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 individual aging within one particular sociocultural context. Letter grading.

119. 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 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, from 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, with special attention to global and cultural divisions between global north and global south. Letter grading.

130A-130B. Community Research and Services Seminars. (4–4) Seminar, three hours; service learning: four hours; outside study: five hours. Course 130A is requisite to 130B. Limited to juniors/seniors. History and roles of social welfare policy within government, organizations, and communities. Reflections about social-service-learning experiences, with application of issues related to lecture and seminar readings. Students to be assigned to two-term tutoring/mentor site where they apply tutoring techniques as they learn about these concepts. Letter grading.

131. Poverty, Poor, and Welfare Policy. (4) Seminar, three hours. Limited to juniors/seniors. Current research and policy issues concerning poverty in the U.S., with specific emphasis on single-parent household holds. Overview of measurements and characteristics of poor people; alternative theoretical explanations of poverty; historical overview of major social welfare policies to combat poverty, particularly Aid to Families with Dependent Children (AFDC) and Personal Responsibility and Work Opportunity Recovery Act (PRWOWA); and critical appraisal of recently enacted state welfare reform policies. Relationship between research knowledge about poverty and current policies, and effects of gender, race, and class on patterns of poverty and policy responses. P/NP or letter grading.

132. Community Analysis and Community Needs. (4) Lecture, three hours. Limited to juniors/seniors. Theory and practice of needs assessment and demographic analysis of needs and determining community needs. Use of systems theory as organizing framework. Community needs can be defined to community needs and develop inter- ventions to respond to those needs. Knowledge of community infrastructure necessary for ascertaining its strengths and resources that can be mobilized for addressing and responding to community needs, issues, and concerns. Social service agencies and communities can work together in partnership to enhance quality of community life. P/NP or letter grading.

M140. Introduction to Study of Aging. (4) (Same as Psychology M140.) Lecture, four hours. Limited to juniors/seniors. Perspectives on major features of human aging—biological, social, psychological, and humanistic. Introduction to information on range of influences on aging to provide foundation for subsequent specialization. P/NP or letter grading.

M142XP. Intergenerational Communication across Lifespan. (4) (Formerly numbered M142S.) (Same as Gerontology M142X and Public Affairs M128XP.) Lecture and three hours. 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 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 psycho- logical, interpersonal, and societal issues related to intergenerational communication across lifespan. 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. Medicare, 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 care of persons with 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 to parents, communities, and nations. Examination of research trends in prevention of drug use and related harm (such as crime and mental health disorders) and effectiveness of interventions to reduce these problems. Through review of science-based programs and policies, evaluation of effectiveness of evidence-based interventions to increase student knowledge, skills, and expertise in determining effective interventions to reduce drug-related harm, using most up-to-date research in prevention of substance use and related harms from legal and illegal substances. Letter grading.

164. HIV Prevention in U.S. and Developing World. (4) Lecture, three hours. Limited to juniors/seniors. Examination of various approaches to HIV prevention, drawing on infectious disease paradigm from public health and theories of behavior change from fields of psychology, sociology, and communications. Sexual behavior and injection drug use, existing and promising technologies to reduce HIV transmission, and fiscal, ethical, and moral dilemmas in allocation of prevention resources. P/NP or letter grading.

M165. Disability Policy and Services in Contemporary America. (4) Same as Disability Studies M130 and Gerontology M200. 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 successful lives with disabilities in contemporary America? How has U.S. responded over time to various needs and aspirations of people with disabilities, young and old? What demands have been made over time by disability advocates? How has government addressed demands of advocates for various disability populations? 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.

181. Nonprofit Sector, State and Civil Society. (4) Lecture, three hours; outside study, nine hours. Use of policy and legal perspectives 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. 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 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 188A. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE topic. 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 188S. 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 research papers, 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 than lecture course 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 subfield 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 195. Not open to freshmen. Introduction to topics relevant to psychosocial determinants of children’s health and community resources for children and families, with opportunity to gain breadth and depth of knowledge in seminar setting. May be repeated for credit. P/NP or letter grading.

195. Community Internships in Social Welfare. (2) Tutorial, four hours. Corequisite: course 194. Not open to freshmen. Introductory course in community-based child health and aging. Exploration of 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. Individual contract with supervising faculty member required. Letter grading.

199. Directed Research in Social Welfare. (2 or 4) Tutorial, two hours; outside study, six hours. Corequisite: supervisory faculty member. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


202A-203B-203C. Integrative Seminars. (4–4–4) Seminar, two and one half hours. Integrative courses that bring together students from diverse disciplines and social work practice. Examination of roles, functions, and responsibilities of social workers. P/NP or letter grading.


202X. Special Topics in Public Affairs. (4) Same as Public Policy M291C 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.

206A. Homelessness: Housing and Social Service Issues. (4) Same as Urban Planning M270L. Lecture, four hours. Corequisite: course 206X. Intensive interdisciplinary study of homelessness: who are homeless, what are social services and housing available, existing and proposed programs—appropriate architecture, management, and sources of funding. Outside speakers include providers of services to homeless. Letter grading.


210B. Foundations of Social Work Practice II. (4) Lecture, two and one half hours. Corequisite: course 401B. Weighing and carrying out evidence-supported practice. Exploration of selection based on differences among individuals and their situations, with partial focus on following interventions: case management, motives of students, intervention; crisis intervention, cognitive, task-oriented, and solution-focused therapies, as well as group 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. Corequisite: course 401C. Core concepts of social work practice in organization, community, and policy settings. Exploration of the community style and institutionalized group work skills. Role of macro practice in agency-based social work in advancing strategies of organizational and social change. Interface and interaction among community, policy, and program development. How societal values influence formulation, implementation, and evaluation of social welfare policies, programs, and services. Analysis of social, economic, and political context of community practice in order to understand policy roots of economic and social injustices. Letter grading.


213A. Social Welfare Research Methods. (4) Lecture, two and one half hours. Introduction to various research methodologies. Application of theoretical and quasi-experimental designs, survey research methods, qualitative methods, and single subject and group-based research designs. Exploration of ethical implications of research and research design. Students learn and practice formulating research problems, 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 statistics.
ent statistical approaches. Introduction to statistical reasoning, with emphasis on how statistics 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 and how they have given rise to today’s social policy structure. Path of social welfare policy development, birth of profession of social work and organization of social work as a profession from early colonial settlements to present day. Specific events and important individuals that have influenced public policy affecting vulnerable populations, such as racial and ethnic minority, women, children, 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. Overview and understanding 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. Learn elements of policy advocacy and competencies and competencies for effective social work leadership in organizational and community settings and integration of research and theory in addressing and resolving social issues. S/U grading.

223. Seminar: Social Work Profession. (2) Seminar, three hours; outside work, nine hours. Conceptually, focus on interplay between abstract theory and concrete examples, such as 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.

225F. Advanced Social Welfare Practice: Cognitive-Behavioral Theories and Methods. (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 depression and stress as conditions that impact social work practice in health settings. S/U or letter grading.

225G. Advanced Social Welfare Practice: Substance Abuse Intervention. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of role of public child welfare worker in relationship to consumer, agency, and community. Further development of social work and case management skills in context of public child welfare practice. Clinical case management explored as intervention in its own right in addition to its use as mechanism for linking children and families to other social systems, professions, and forms of intervention. Interpretation of current public child welfare trends, events, trends, terms, and laws and their relationship to direct practice issues. S/U or letter grading.

225K. Advanced Social Welfare Practice: Mental Health. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Designed to provide students with grounding in social work practice with adults in mental health settings. Employs evidence-based approaches to providing services to pervasive and persistent mentally ill. Exploration of strengths-based recovery-oriented approaches that are consistent with knowledge and values of evidence-based practice. Exposure to range of interventions applicable to most common mental health problems and barriers to service delivery for this vulnerable population, such as stigmatization, cultural bias, and gaps in knowledge. S/U or letter grading.

225L. 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 healthcare teams. From case-based approach, examination of variety of clinical challenges and treatment techniques for use in multiple settings, and interventions to implement with individuals, families, groups, and multidisciplinary healthcare teams. Evaluation of policy implications that impact social work practice in health settings. S/U or letter grading.

227A. Child Welfare. (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 healthcare teams. From case-based approach, examination of variety of clinical challenges and treatment techniques for use in multiple settings, and interventions to implement with individuals, families, groups, and multidisciplinary healthcare teams. Evaluation of policy implications that impact social work practice in health settings. S/U or letter grading.

227B. Early Childhood 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 healthcare teams. From case-based approach, examination of variety of clinical challenges and treatment techniques for use in multiple settings, and interventions to implement with individuals, families, groups, and multidisciplinary healthcare teams. Evaluation of policy implications that impact social work practice in health settings. S/U or letter grading.

227C. Young Adult 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 healthcare teams. From case-based approach, examination of variety of clinical challenges and treatment techniques for use in multiple settings, and interventions to implement with individuals, families, groups, and multidisciplinary healthcare teams. Evaluation of policy implications that impact social work practice in health settings. S/U or letter grading.

227D. Advanced Social Welfare Practice: Family Welfare. (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 healthcare teams. From case-based approach, examination of variety of clinical challenges and treatment techniques for use in multiple settings, and interventions to implement with individuals, families, groups, and multidisciplinary healthcare teams. Evaluation of policy implications that impact social work practice in health settings. S/U or letter grading.
but not limited to natural disasters, war, abuse and neglect, medical trauma, and witnessing interpersonal crime (e.g. domestic violence) and other traumatic events. Highlights role of development, culture, and empirical evidence in trauma-specific case conceptualization and treatment planning. Addresses level of functioning of primary care giving environments and assesses capacity of community to facilitate restorative processes. Letter grading.

232. Prevention and Promotion in Health and Mental Health. (4) Lecture, two and one half hours. Corequisite: required social work practicum. Methods of social work practice and policy advocacy as problem-solving process. Analysis of social work policies, particularly for marginalized populations, development of alternative policies, and use of different advocacy tools/techniques to gain support for policy change. S/U or letter grading.

242. Resilience, Risk, and Thriving among Children and Families. (4) Lecture, two and one half hours. Core course for Child and Family Well-Being area of concentration. Emphasis on 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 children. Focus on prevention efforts to ensure healthy development for all youth, stop family violence, and increase social connections. Prepares students for professional roles as social workers in promoting healthy, strong, and resilient children and families around relevant social and economic justice issues. Letter grading.

249A-249B-249C. Foundations of Scientific Inquiry I, II, III. (4–4–4) Lecture, three hours; outside study, nine hours. Limited to PhD students. Introduction to the tools of social work research. Conveys seminal knowledge of key settings—and experiences within them—that impact children and family functioning. Drawing from theory and empirical research, students develop skills in research ethics and critical thinking needed to design and conduct research projects. Cumulates in completion of full research project. S/U grading.

250A. Theories and Practices of Social Justice. (4) Lecture, two and one half hours. Core course for Social and Economic Justice area of concentration. Trains students to understand philosophies of social justice, history of ideas, and key ethical frameworks underlying social work. Students will practice through focus on poverty interventions, welfare policy, mass incarceration, community organizing, homelessness, and displacement. Focus on U.S. with ongoing global and comparative approach to social welfare. Letter grading.

258. Critical Problems in Social Welfare. (2) Discussion, two hours. Designed for PhD students. Current problems in field of social welfare. Specific topics vary each semester to reflect research and educational interests of students and needs of class. May be repeated for credit. S/U grading.

259. Variable Topics in Statistics in Social Sciences. (4) Lecture, three hours. Limited to graduate students. Designed to provide in-depth understanding of particular topics in area of applied statistics/measurements to graduate students engaged in conducting research in broad array of fields that comprise social sciences. Letter grading.

260A. Research Capstone I: Project Development. (4) Lecture, two and one half hours. Formulation of research problems, questions, and hypotheses that give current review of literature and theoretical framework of understanding of area of interest. Group in working through the development of a research proposal that includes literature review and outlines process for collecting data and strategies to address applied problem. Cumulates in completion of full proposal for research capstone project and articulates work plan for team members. S/U grading.

260B. Research Capstone II: Data Gathering, Analysis, and Interpretation. (4) Research group meeting, two hours. Supports students in implementing their research capstone, including data gathering and preliminary analysis. Class meetings may occur in small or large groups to assist with trouble shooting or to teach specialized research skills. Cumulates in presentation of project methods and initial results. Letter grading.

260C. Research Capstone III: Data Gathering, Analyses, and Interpretation. (2) Research group meeting, two hours. Analysis and interpretation of data. Completion of final research project. Culminates in final paper that includes abstract, theoretical literature review, methods, data analysis, discussion, and implications for social welfare. S/U grading.

270. Being Leader and Effective Exercise of Leadership: Ontological/Phenomenological Model. (6) Lecture, five hours; outside study five hours. Students have opportunity to become aware of and deal with personal obstacles (ontological constraints) to exercise of leadership. Leadership project and diverse group study as laboratory. Excludes students with previous undergraduate experience. S/U or letter grading.

281A-281B-281C. Advanced Social Welfare Research. (2–2–2) Discussion, two hours. Individual or group research projects requiring intensive examination and analysis of social problem area, directed to advanced development of research skills and techniques for social work practice. In Progress (281A, 281B) and S/U or letter (281C) grading.

284A-284B-284C. Doctoral Research Apprenticeship. (2–2–2) Each, 200 hours. Limited to PhD students. Exposes first-year PhD students to process of conducting research in social welfare. Students develop range of research skills and understanding of ethical issues. 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, collecting data, cleaning and preparing data, analyzing data, and writing up research findings for conferences and journal submissions. Students will work closely with their faculty advisor. S/U or letter grading.


285E. Research in Gerontology. (4) Lecture, three hours. Discussion of research in aging. Development of research questions, selecting appropriate theoretical frameworks, conducting literature reviews, selecting appropriate research design, identifying sampling methods, and data collection in aging research, including sampling, questionnaire design, and recruitment issues. Letter grading.

285F. Research in Health. (4) Lecture, three hours. Research in area of health policy and services. Discussion 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 issues, and consideration of alternative roles for social work practitioners in arena of health services. Letter grading.


285H. Program Evaluation Research. (4) Lecture, three hours. Discussion of differences and similarities 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. Instruction and experience in applying experimental and quasi-experimental designs, survey research methods, ethnographic methods, single-subject design, and observational methods. Operational definition of variables and selection and design of appropriate measures for research with children and adolescents. Letter 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; overview of research methods; methods of data collection and techniques of data analysis. Letter grading.

286B. Advanced Research Methods. (4) Seminar, three hours. Advanced concepts underlying research methods in social work. Emphasis on 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.

286C. Research Internship. (4) Fieldwork, four hours. Supervised study and training through participation in on-going research project or one initiated by student. Focus is on faculty supervised enabling students to apply research skills developed in prior courses. May be repeated for credit. S/U grading.

290A-290B-290C. Seminars: Social Work. (4–4–4) Seminar, three hours; outside study, nine hours. Series of seminars dealing with trends in social work and social welfare, with focus on current social problems affecting social workers. Lecture and research on trends and research paradigms of intervention based on recent demonstrations and research. S/U or letter grading.

290D. Criminal Justice and Mass Incarceration. (4) Lecture two and one half hours. Exploration of relationship between social welfare and criminal justice system focusing on gangs, prison 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 policy surrounding gangs and relationship to punishment, incarceration, death penalty, and development and endurance of prison gangs. Analysis of criminal justice in future directions, capacity and social 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 LGBT-identified communities throughout U.S. Identification of health disparities that exist within broad conception of LGBT-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 LGBT communities in current political climate. Offers opportunities for examination of implications and outcomes for LGBT people may be helped by bringing relevant social scientific research to bear in shaping law and policy matters moving forward. Letter grading.

290F. Firearm Violence Prevention Policy. (4) Lecture, two and one half hours. Introduction to upstream 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 important research findings about correlates, patterns, 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. Philosophy and policy applications 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 cannabis. Critical thinking skills and ethical considerations for harm reduction principles. Implications for social work practice across lifespan. Letter grading.

290H. Children with Special Healthcare Needs: Systems Perspectives. (4) Systems Perspectives, as Common Health Sciences M420 and Health Policy M420.) Lecture, three hours; fieldwork, one hour. Examination and evaluation of principles, policies, programs, and practices that have been developed to address special needs of infants, children, and adolescents with developmental disabilities or chronic illness and their families. Letter grading.

290I. Child Welfare Policy. (4) (Same as Public Policy M212.) Lecture, three hours. Development of social policy as it affects families and children from different cultural backgrounds and as it is given form in public child welfare system. Examination of development of an infrastructure to support needs of children and families. S/U or letter grading.

M290K. Mental Health 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 delivered. Letter grading.

M290L. 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. S/U or letter grading.

M290M. Health Policy. (4) (Same as Public Policy M215.) Lecture, three hours. Introduction to contemporary issues in health policy, examining history, policy making processes, and identifying historical dimension of developmental challenges of the health sector. Letter grading.

M290N. 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 communities, with emphasis on impact of policies at federal, state, and local levels. S/U or letter grading.

M290P. 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 frameworks and concepts of policy process and 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.


M290S. Politics, Power, and Philanthropy. (4) (Same as Public Policy M227 and Urban Planning M237.) 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, exploration of legal and policy environments and distinct organizational forms. Comparative perspective between U.S. and other countries. S/U or letter grading.

M290T. Juvenile Justice Policy. (4) Lecture, two and one half hours; outside study, nine hours. Overview of juvenile justice systems in U.S. and issues that have shaped current-day practice. Role of social workers in system to be theme throughout course. Letter grading.

M290U. Community Development and Housing Policies: Roles of State, Civil Society, and Nonprofits. (4) (Same as Public Policy M243 and Urban Planning M275.) 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. 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.

M290W. 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. Problems of global poverty, social injustice and inequality, and issues of racial, ethnic, and cultural diversity, with emphasis on mechanisms of control applied. Public health services, and social welfare and international social 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 M247B and Urban Planning M210B.) 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 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 systemic, 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 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, crisis management, governance innovation, and 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. Designed to meet professional development needs of first-year Public Policy 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 to assist with career planning strategies. 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.


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. S/U grading.

596A. Special Study and Research in Social Welfare. (2 to 8) Tutorial, to be arranged. Individual programming for selected students to permit pursuit of subject in greater depth. S/U or letter grading.

596B. Special Study and Research for PhD Candidates. (2 to 12) Tutorial, to be arranged. Limited to PhD students. S/U grading.

597A. Preparation for MSW Comprehensive Examination. (2 to 8) Tutorial, to be arranged. S/U grading.

597B. Preparation for PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Limited to PhD students. S/U grading.


SOCIETY AND GENETICS, INSTITUTE FOR

Center for Interdisciplinary Instruction
College of Letters and Science
3360 Life Sciences
Box 957221
Los Angeles, CA 90095-7221

Society and Genetics
310-267-4990
Program e-mail

Hannah L. Landecker, PhD, Director
Christopher M. Kelty, PhD, Vice Chair, Undergraduate Education

Faculty Roster

Professors
Michael E. Alfaro, PhD
Soraya de Chadarevian, PhD
Wayne W. Grody, MD, PhD
Martie G. Haselton, PhD
Christopher M. Kelty, PhD
Russell Korobkin, JD
Hannah L. Landecker, PhD
Rachel C. Lee, PhD
Megan M. McEvoy, PhD
Christina G.S. Fowler, PhD, in Residence
Janet S. Sinsheimer, PhD
Stefan Timmermans, PhD

Professors Emeriti
Joan B. Silk, PhD
Matthew Norton Wise, PhD

Associate Professors
Patrick Allard, PhD
Allison B. Carruth, PhD
Nanibaa’ A. Garrison, PhD
Terence D. Keel, PhD
Jessica W. Lynch, PhD
Aaron L. Panofsky, PhD

Assistant Professors
Shane C. Campbell-Staton, PhD
Nicholas E. Shapiro, PhD
Bharat J. Venkat, PhD

Adjunct Assistant Professor
Michelle A. Rensel, PhD

Overview

The Human Biology and Society majors provide 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 and synthesized in the context of 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 understanding in writing and spoken communication; elective concentrations that allow students to focus on a particular emerging research area at the intersection of biology and society; 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
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 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.

Premajor standing is not required to apply for the major. A copy of the major application is available on the department major web page.

Preparation for the Major
 Required Core: One course from Society and Genetics 5, M71A, or M72A.

Also required are Anthropology 1, Chemistry and Biochemistry 14A, Life Sciences 7A, 7B, 7C, Statistics 10 or 13, and two social theory courses from American Indian Studies M10, Anthropology 3, Asian American Studies 20, Chicana/o and Central American Studies 10A, 10B, Clusters M1A through 80CW, Gender Studies 10, Geography 3, History 3C, Honors Collegium 70A, Molecular, Cell, and Developmental Biology 50, 60, Philosophy 4, 6, 8, 22 or 22W, Public Policy 10A, Society and Genetics 85, Sociology 1, M5.

Policies
 Each course must be taken for a letter grade, and students must complete all premajor courses with a cumulative minimum grade-point average of 2.9.

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 paleontology course, and two 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.

The Major
 Required: Society and Genetics 101, 105A, 105B, 108; 4 units from course 195CE, 196, or 199; and five courses (at least one of which must be a society and genetics course) from one of the following concentration areas:


Historical and Social Studies of Science: Anthropology 100, 131, 143, Asian American Studies 105, Bioengineering 165EW, Disability Studies 101 or 101W, M121, Ecology and Evolutionary Biology 100, 120, C126, 130, 175, Environmental Health Sciences 100, C185A, C185B, Epidemiology 100, Gender Studies 134, M162, M164, M180B, Geography M125, M131, Global Studies 102, 104, History M151C, 179A, 179B, 180A, 180C, Honors Col-
Cell Development: Molecular, Cell, and Developmental Biology 136, 165A, 168
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, 129

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 also take Society and Genetics 197 or 199 in which they write a research paper in their major concentration area and receive a grade of A or better.

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

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.

Premajor standing is not required to apply for the major. A copy of the major application is available on the department major web page.

Preparation for the Major
Required Core: One course from Society and Genetics 5, M71A, or M72A.

Also required are Anthropology 1; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 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, or Mathematics 31A, 31B, 32A, and Statistics 10 or 13; Physics 1A, 1B, 1C, 4AL, 4BL (or 5A, 5B, 5C); and two social theory courses from American Indian Studies M10, Anthropology 3, Asian American Studies 20, Chicana/o and Central American Studies 10A, 10B, Clusters M1A through 800W, Gender Studies 10, Geography 3, History 3C, Molecular, Cell, and Developmental Biology 40, 50, 60, Philosophy 4, 6, 8, 22 or 22W, Public Policy 10A, Society and Genetics 85, Sociology 1, M5.

Policies
Each course must be taken for a letter grade, and students must complete all premajor courses with a cumulative minimum grade-point average of 2.5.

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, 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.

Transfer applicants must also complete at least two of the following introductory courses prior to admission to UCLA: one statistics course, one anthropology human evolution course, and two introductory social sciences or history courses. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission. 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.

The Major
Required: Life Sciences 107 (if Life Sciences 7A, 7B, 7C, and 23L are taken); Society and Genetics 102, 105A, 105B, 108; 4 units from course 195CE, 196, or 199; and five courses (at least one of which must be a society and genetics course) from one of the following concentration areas:


Historical and Social Studies of Science: Anthropology 160, 161, 143, Asian American Studies 105, Bioengineering 165EW, Disability Studies 101 or 101W, M121, Ecology and Evolutionary Biology 100, 120, C126, 130, 175, En-
vional Health Sciences 100, C185A, C185B, Epidemiology 100, Gender Studies 134, M102, Computer Science CM121, Ecology, M151C, 179A, 179B, 180A, 180C, Honors College 177, Human Genetics C144, Neurobiology M169, Philosophy 124, 125, 129, 130, 137, 155A, Physiological Science 140, Sociology and Genetics 120, 121, 130, 131, M133, M144, 160, 161, 162, 163, 164, 165, 175, 180, 188, 195CE, 197, 199, Sociology M138, 143, M148, 154, 156, 165, 167, 173. See below for additional course options in the subfocus area of cell development, microbiology and immunology, molecular biology and genomics, physiology, and psychology and mental health.


**Population Genetics and Evolution:** Two courses from Ecology and Evolutionary Biology C135, Human Genetics CM124, and Society and Genetics 120, and one course from Ecology and Evolutionary Biology 120, 121, or Human Genetics C144.


**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 also take Society and Genetics 197 or 199 in which they write a research paper in their major concentration area and receive a grade of A or better.

**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 accepted 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 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. (5) 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 biobehavioral 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 historical and social 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 (same as C171A), which is enforced prerequisite to M71C. Limited to first-year freshmen. Letter grading. M71A-M71B. Lecture, three hours; discussion, two hours. Exploration of methods, applications, and implications of biotechnology and of ethical, social, and political implications as well as biotechnological underpinnings. M71C. Special Topics. Seminar, three hours. Enforced prerequisite: course M71B. Topics include in-depth examination of ethics and human genetics, bioweapons and biodefense, sex and biotechnology. Satisfies Writing II requirement.

M72A-M72B-M72CW. Sex from Biology to Gender. (6-6-6) (Same as Communication M72A-M72B-M72CW,Clusters M72A-M72B-M72CW, and Sociology M72A-M72B-M72CW) Course M72A is enforced prerequisite to M72B, which is enforced prerequisite to M72CW. Limited to first-year freshmen. Letter grading.
790 / Society and Genetics, Institute for 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 complementary perspectives of anthropology, biology, medicine, and the social sciences. Topics include biological and social origins of sex differences, intersex, gender identity, gender inequality, homosexuality, sex differences, sex/gender and law, and politics of sex research. M72CW. Special Topics. Seminar, three hours. Enforced requisite: course M72B. Topics may include politics of reproduction, sexuality, sexual identity, social construction of gender, and reproductive technologies. Satisfies Writing Requirement.

85. Critical Study of Health, Sickness, and Healing in Global Perspective. (4) Lecture, three hours; discussion, one hour. Introduction to sociocultural, historical, and global study of health and sickness. Use of case studies of globally important infectious and chronic diseases (diabetes, Ebola, HIV/AIDS) to analyze factors, including key dimensions of diversity (class, gender, culture, developmental stage) that influence how populations variably encounter, experience, understand, and cope with sickness. Special focus on relationships between Western medicine and traditional and alternative approaches to healing. 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 readings, class discussions, and 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.

89CH. 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.

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 much of time reading, and some other research-related activity. 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 concepts from molecular biology, population and quantitative genetics, and evolutionary biology, with emphasis on gene-environment interaction at various levels and culminating in exploration of notion of co-evolution of genetics and society. Basic science concepts presented through real-world issues and research problems. Current research on cancer, immune system and development, and how this research is performed. Letter grading.

102. Societal and Medical Issues in Human Genetics. (5) Lecture, three hours; discussion, two hours. Sequence of entire human genome is now known. Consideration of how this knowledge impacts concepts of ourselves as individuals and of our place in biological universe, concepts of race/ethnicity and gender, ability of DNA-based forensics to identify specific individuals, ownership and commodification of genetic information, issues of privacy and confidentiality, issues of genetic discrimination, issues of predictive genetic testing. Discussion of human cloning for reproductive and therapeutic purposes, Exposure to medical genetics case studies. Discussion of how new understanding of genetic concepts presented through real-world issues and research problems. Current research on cancer, immune system and development, and how this research is performed. Letter grading.

105A. Ways of Knowing in Life and Human Sciences. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 5 or M71A or M72A. Course 105A is not requisite to 105B. Introduction to study of epistemology to train students to recognize different ways that biological and human sciences, instruments and methods are used to study, measure, and experiment. Exploration of how they are manifest in technologies that cut across disciplines to help us understand ourselves. Standards of proof, and qualitative versus quantitative studies. Explorations may include DNA sequencing, tissue culture, biometrics, statistics, photography and cinema. DNA sequencing 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 identity of individuals. DNA in administrative, commercial, and legal contexts. Photography is used in sciences and medicine (e.g., X-ray photography), as well as in art and forensics. Letter grading.

105B. Problems of Identity at Biology/Society Interface. (4) Lecture, three hours; discussion, one hour. Requisites: course 101 or Anthropology 1, or Life Sciences 107; taken concurrently). Course 105A is not requisite to 105B. Exploration of problems of human identity that are inherent in biological and social. Topics vary and may include race, culture and individuality, gender, ability, gender, intelligence, or sexuality. Topics contain set of intertwined problems so complex, so difficult to define, and so wrapped up in conceptions of what it is to be human, that research from variety of perspectives in biological and human sciences. Students critically engage various intellectual perspectives—some competing, some complementary—that intersect on one particular topic. Examination of how researchers from social/historical and biological sciences construct topic as intellectual problem, methods they bring to bear on it, and findings that they have reached. Letter grading.

106. Human Biology, Genetics, and Society. (5) Lecture, three hours; laboratory, two hours. Limited to senior Human Biology and Society majors. Lectures, readings, discussions, and development of collaborative culminating project. Group-based research projects in mapping and staging contemporary controversies at intersections of human biology, genetics, and society. Reading of large amounts of material to make sense of both scientific and social and political issues, with original research project and presentation required. Letter grading.

120. Genetics and Human History. (4) Lecture, three hours. Requisites: course 101 or Life Sciences 107. Advancements in genetic research rapidly transformed traditional archaeological and historical investigations of human past. Drawing from recent research, focus on how genomic analysis has shed new light on old debates such as migration of Homo sapiens out of Africa, human interbreeding with Neanderthals, first migration to North America, genetic expansions throughout Europe and genetic diversity of historic figures such as Thomas Jefferson and Genghis Khan. Discussion of practical and theoretical issues surrounding genetic research on history of humans, including challenges of using ancient and modern DNA to understand genetic theory, and ethical implications of genetic research for understanding ethnic identity. Letter grading.

121. Race, Science, and Citizenship. (4) Seminar, three hours. Early development of scientific method and systematic exclusion of those in subordinate social groups from scientific practice. Interrogation of binaries that prop up scientific knowledge construction, and consideration of how valid (and invalid) concepts are embedded in scientific practice. Comparison of Western science with indigenous or local knowledge systems. How medical research is motivated by competing assumptions of racial hierarchy or equity. Students’ use of science to classify racially inferior and contaminated foreigners as threats to national order. Exploration of how people use knowledge about their embedded experiences to demand rights and accept responsibility for their own health and vitality, either in opposition to or alliance with scientific experts. How contemporary developments in science and technology bring to light some central concerns of social and political theory. Letter grading.


132. Food Cultures and Food Politics. (5) (Same as English M118F and Food Studies M132.) Lecture, four hours; discussion, one hour (when scheduled). Requisite: English Composition 3. Introduction to interdisciplinary field of study, with focus on how scientific, social, and cultural movements create technologies that cut across disciplines to shape social and cultural meaning. Topics include history and relationship to digital humanities and related fields. Letter grading.

133. Environmental Sociology. (4) (Same as Environ M133 and Sociology M112.) Lecture, three hours; discussion, one hour. Major themes include: resources and society. Analysis in detail of interconnectedness of 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.

134. Food and Health in Global Perspective. (4) Lecture, three hours. Study problematizes and addresses contemporary food system’s effects on human health and unhealthy consumption by examination of relationship between food and health, from critical and holistic perspective, that accounts for interplay of biology, culture and social, societal, and global contexts. Topics include what is meant by health, especially in terms of diet; relationship between food practices and evolutionary biology, as well as particular environments (urban, rural, colonial) and global systems, histories, and their health implications; how major global foods have come to their dominance and consequences for health; and influences of food production, distribution, and preparation on health. Letter grading.

136. Eating Society: 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. Introduction to food and health are both individual and social. Students gain tools for understanding relationships between individual eaters, medicine, and social organization of food production and processing through the study of research frameworks ever more integrated within (social and) health sciences. Topics include individual and social ramifications of microbiome science, undernutrition and how human gut health is shaped by pasteurization, processing, and food safety practices; One Health approaches that encompass human and animal health, discussing examples such as antibiotic resistance and infectious disease as effects of large-scale agriculture; planetary health frameworks that link individual human metabolism to health as emerging from sustainable agriculture, for example, food production and processing across ecosystems; and resilience of cultural food systems in face of environmental pollution as issue of reproductive health. Letter grading.
141. Nature versus Nurture: Genes and Environment. (4) Seminar, three hours. Comprehensive and practical examination of emerging science of gene-environment interaction. Discussion of primary components of field, including role of metabolic pathways in modifying gene expression and importance 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 Genetics, Ecology, and Conservation. (4) Same as Anthropology M128S.) Seminar, three hours. Focus on genetic research in wild primates at different levels in nonhuman primate systems, including readings from primary literature on primate genetics, ecology, and behavior. Study of paternity and kinship, intraspecific variation, population genetics, biogeographic systematics, phylogenetics/phylogeny and comparative genomics. Utility and appropriateness of various markers considered for different research purposes, e.g., mitochondrial DNA, microsatellites, nuclear genes, Y-chromosome, as well as GWAS and genomic next generation sequencing platforms, and epitome-genomic markers. Discussion of methods in fieldwork and laboratory sampling techniques, computer techniques, wet lab techniques, software analysis packages, and statistical analyses. Introductory-level understanding of genetics expected; study further illuminates field in importance of biology relevant to case studies analyzed. Letter grading.

M143. Amazon in Anthropocene. (4) Same as Anthropology M128T.) Seminar, three hours. Consideration of major issues faced in Amazon region today using lenses of biology, geography, biological anthropology, paleoanthropology, cultural anthropology/ethnography, history, comparative literature, film studies, political science, and environmental science. Analysis of Amazon paleogeography and ecology over time to highlight charismatic species, biodiversity, and habitat types. Focus on human migration into Amazon, diversity of indigenous groups today, and historic/present interactions. Study of European expeditions that carved out political boundaries within Amazon. Study of historic/current effects of human economy and land use on ecology. Exploration of changing power dynamics, inequality, and unsustainable ability of different cultural practices and technologies. Topics include rubber boom, indigenous resistance to oil exploration, hydroelectric dams and clean energy, deforestation, and international land grabs for plantations. Highlights value of different kinds of knowledge and expertise for interdisciplinary solutions for current crises in Amazon. Letter grading.

M144. Stress and Society: Biology and Inequality. (4) Seminar, three hours; discussion, one hour. Integrative view of health disparities, one of most pressing problems of society, through investigation of effects of socioeconomic status (SES) on health and disease, using specific lens of stress biology. Topics include introduction to fundamentals of physiology of stress, integration of literature on poverty and SES with studies on physiological abnormalities, one of most pressing problems of society, and the complex interplay of biology and socioeconomic factors.

146. Evolution in Anthropocene. (4) Lecture, three hours; discussion, one hour. Recommended requisite: Life Sciences 7A, 7B, 7C. Study of evolution across world and tree of life that is being altered at incredible pace by humans. Exploration of incredible stories of surprising, amazing, sometimes heart-breaking ways humans are changing life, and how these things affect human culture, fashion trends, and history. How humanity has impacted the planet that humans are leaving on other species, and astounding ways they have altered their evolutionary course to keep pace. Letter grading.

M157. Biology of Superheroes: Exploring Limits of Form and Function. (4) (Same as Ecology and Evolutionary Biology M157.) Lecture, four hours; discussion, one hour. Requisites: Life Sciences 1 and 4, or 7A and 7B. Combines topics posed in popular graphic novels, movies, and television with primary scientific literature to explore bizarre phenomena in natural world and delve into basic scientific theory and principles. Topics covered include evolution, genetics, physiology, biochemistry, brain-machine interfacing, and artificial intelligence among others. Students synthesize primary literature on diverse subjects presented. Letter grading.

160. Politics of Heredity. (4) Seminar, three hours. Exploration of intersection of politics and genetics in liberal democracies and totalitarian regimes. How genetics has been used to consolidate and undermine political authority, and how political authority has been employed to both promote and restrict genetics. Consideration of several historical episodes such as rise to power of the eugenics movement in Nazi Germany, and debates over eugenics in other liberal democracies and totalitarian regimes. How genetics and politics influence one another; how improvement care and finding cures, they also create new moral dilemmas and challenge us to redefine what is good or life or family. Introduction to field of biopolitics, with focus on case studies that relevance to human-ology studies, consideration of range of materials including theoretical and empirical academic texts as well as commentaries and documents speaking to current events. Consideration of demarcations of science from pseudoscience. Preparatory: some familiarity with field of science and technology studies. Investigation of recent developments, possible future directions, and questions of disciplinarity and interdisciplinarity. Topics may include histories of recent and emerging science, biopolitical, biotechnology and end-of-life treatment and care. Consideration of concepts such as freedom, kinship, dignity, advocacy, equal rights, and political and legal decisions about science and its effects. Letter grading.

161. Controversy and Behavior Genetics. (4) Seminar, three hours. Behavior genetics is controversial and seeks genetic links to intelligence, personality, mental illness, and criminality, among many other traits. It explores theories that men and women, or racial groups, and what social policies might do about those differences. Analysis of causes and effects of controversy in behavior genetics using critical thinking and writing. Using scientific and historical-scientific disputes between behavior genetics and their critics, distinctive history and social organization of behavior genetics as group of scientists, and public reception of behavior genetics and debates 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 our own and where we now possess ownership and control over our bodies, encompassing not only our physical but intangible information contained within our materialized forms. Question of whether these rights to our own bodies exist and are secured by common and Constitutional law, in light of recent developments in biotechnology. Introduction to political and legal discourse of rights. Historical perspectives and ethical implications, including rights to disabled embryos, preimplantation genetic testing, cloning, and genetic enhancements. Letter grading.


164. Ethics in Health and Research. (4) Lecture, three hours. Recommended requisite: course 102. How should life-saving organs be allocated in context of scarcity? How do we choose to die? Should one be allowed to choose sex of babies or whether they will be tall enough to be next basketball star? Should terminally ill be helped to die? Do human embryos have moral status? Examples of ethical questions that arise in light of dramatic advances of biomedicine in 21st century. While new knowledge and technological opportunities for policies and procedures to improve care and finding cures, they also create new moral dilemmas and challenge us to redefine what is good or life or family. Introduction to field of biopolitics, with focus on case studies that relevance to human-ology studies, consideration of range of materials including theoretical and empirical academic texts as well as commentaries and documents speaking to current events. Consideration of demarcations of science from pseudoscience. Letter grading.

174. What's Wrong with Science? (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 102. Exploration of tangled issues linking science to contemporary post truth crisis. Drawing on ideas and frameworks from sociology, philosophy, anthropology, political psychology, and science and technology studies, consideration of range of materials including theoretical and empirical academic texts as well as commentaries and documents speaking to current events. Consideration of demarcations of science from pseudoscience. Letter grading.

180. Special Courses in Society and Genetics. (4) Lecture, three hours. Preparatory: some familiarity with field of science and technology studies. Investigation of recent developments, possible future directions, and questions of disciplinarity. Topics may include histories of recent and emerging science, biopolitical, biotechnology and end-of-life treatment and care. Consideration of concepts such as freedom, kinship, dignity, advocacy, equal rights, and political and legal decisions about science and its effects. Letter grading.

M174. Being Human: Identity in Age of Genomics and Neuroscience. (5) (Same as Disability Studies M183 and Honors Collegium M183.) Seminar, three hours. Exploration of relationship between identity and neuroscience 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. En-
Seminar, three hours. Departmentally sponsored experimental or temporary courses on selected topics, 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: USIE 88S. Limited to junior/senior USIE facilitators. Individual study under regular 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. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188A. Limited to junior/senior USIE facilitators. Individual study under regular 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 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 supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit with topic change. 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 Society and Genetics. (2 to 4) Seminar, six hours. Limited to juniors/seniors. Entry-level research opportunities in society and genetics under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP or letter grading.

191. Variable Topics Research Seminars: Perspectives in Society and Genetics. (5) Seminar, three hours. Enforced requisites: courses 101 (or Life Sciences 4), M102. Discussion of genetics and society from historical perspective. How science of genetics itself is deeply social. Study of how biologists and anthropologists have conceptualized relations of genes and (social) environment. Reading of accounts of human nature, human flourishing, and dignity that seem to privilege nature as something that can guide ethical thought and action. How these accounts would encourage or discourage people from manipulating their genetic inheritance. Consideration of what is new in new genetics. Current discussions of promise and peril of genetics in relation to society. Culuminating paper required. May be repeated once. 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.
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 career opportunities in government, technology, and nonuniversity research centers.

**Undergraduate Major**

**Sociology BA**

**Learning Outcomes**

The Sociology major has the following learning outcomes:

- 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

**Premajor**

Only students with fewer than 90 units completed (excluding Advanced Placement units/credit) may declare the Sociology premajor once they complete either Sociology 1 or 20 with a grade of C or better.

**Preparation for the Major**

**Required:** Sociology 1, 20, and one course from Political Science 6, Statistics 10, or 13.

**Policies**

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.

**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 premajor 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.

**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, or 152, (b) institutions and social processes—Sociology 116, 121, 143, 151, 158, 172, 173, M174, M175, M176, or 181B, (c) power and inequality—Sociology M115, 122, 123, 147A, M155, 156, 157, M161, M162, M164, M165, 181A, 182, 183, 185, or 186; and (4) any five upper-division sociology elective courses.

Students should complete course 101 and the core courses before taking other upper-division courses.

**Policies**

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**

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.

As preparation for the honors program, students must complete all preparation for the major courses.
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.

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.

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.

Graduate Major

Sociology MA, CPhil, PhD

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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 research. P/NP or letter grading.
2. Social Thought and Origins of Sociology. (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.
3. Introduction to Methods. (4) Lecture, two hours; discussion, two hours. Fieldwork, 10 hours. Requisite: course 106A. Collection and analysis of both field notes and unstructured interview data from field observations, using both qualitative and quantitative descriptive analysis, including qualitative coding, analytic memoing, and grounded theory methods, to analyze these materials and to write ethnographic paper. Letter grading.
4. 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 for historical events; and exploring how social patterns and changes over time. P/NP or letter grading.
5. Social Networks. (4) Lecture, three hours; laboratory, one hour. Analysis of how social networks create social structure, how they influence them, 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.
6. Introduction to Mathematical Sociology. (4) Lecture, three hours; laboratory, one hour. Requisites: Mathematics 2, 3A (course whose content includes introductions to probability theory, matrix algebra, and differential and integral calculus) and Statistics 2. Theoretical treatment of several sociological phenomena, such as occupational mobility, population growth, organization 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.
7. Statistical and Computer Methods for Social Research. (4) Lecture, three hours; laboratory, one hour. Requisite: Statistics 10. Continuation of Statistics 10, covering more advanced statistical techniques such as multiple regression, analysis of variance, or factor analysis. Content varies. Students learn how to use computer and write papers analyzing prepared data sets. P/NP or letter grading.
8. 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 phenomena, including emerging computational methods. Integrates substance and method. Draws on literature in social inequality to demonstrate applications of studied methods. P/NP or letter grading.
9. Environmental Sociology. (4) Same as Environment M115. Lecture, three hours; discussion, one hour. Relationship between society and environment. Analysis in detail of interactions 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.
10. Family Demography. (4) Lecture, three hours; discussion, one hour. Examination of ways families and households organize bearing, associated with family and household organi...


119. Principles of Sociology. (4) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Selected topics on diverse behaviors and cultural forms of prime mates, with special focus on baboons, chimpanzees, and gorillas. Examination of primates' social ecology, sexual competition, demography and kinship, politics, communication, and interactions within and between groups. Implications for our lives as human primates. P/NP or letter grading.

M120. Disability Rights Law. (4) (Same as Disability Studies M1149.) Lecture, four hours. Examination of disability-related issues impacting all of ages across wide spectrum of settings in both public and private spheres. Analysis of how disability is constructed in modern life, and role of categories like Islam in contemporary U.S. politics. Focus on complicated question of what it means to say someone or something is 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.

121. Sociology of Religion. (4) Lecture, three hours; discussion, one hour. Examination of classic and contemporary work in social scientific study 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 question of what it means to say someone or something is 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 symbolic violence. Discussion of how various social categories such as race, ethnicity, religion, class, and gender are implicated in violence and examination of cases of interstate war, genocide, civil war, terrorism, and pogroms from around world.

123. Social Change. (4) Lecture, three hours; discussion, one hour. How does social change occur? This question is linked to fundamental debates in sociology about structure (degree to which individual's actions are constrained by social forces) and agency (degree to which individuals can choose their own courses of action). Major theories (Marxist, Weberian, demographic, and strategic action) of social change take different views of structure and agency. Consideration of these theoretical issues in context of social change by considering empirical examples. P/NP or letter grading.

CM124A-M124B. Conversational Structures I, II. (4-4) (Same as Communication M144A-M144B.) Lecture, three hours; discussion, one hour. P/NP or letter grading. (Numbered M124) Introduction to various structures employed in organization of conversational interaction, such as turn-taking, action sequencing, and repair. Concurrently scheduled with Communication M125. P/NP or letter grading.

CM125. Talk and Social Institutions. (4) (Same as Communication M125.) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Practices of communication and social interaction in number of major institutional sites in contemporary society. Set- ting varies but may include emergency services, police and courts, medicine, news interviews, and political oratory. Concurrently scheduled with course CS258. P/NP or letter grading.

126. Study of Norms. (4) Lecture, three hours; discussion, one hour. Properties of norms, of normatively governed conduct, of lay and professional methods for describing, producing, using, and validating norms in contrasting settings of socially organized activities; relevance of these to programmatic problems of analytic sociology. Fieldwork required. P/NP or letter grading.

127. Mind and Society. (4) Lecture, two and one half hours; discussion, one hour. Requisite: course 1. Study of social production of modes of thought and forms of knowledge. Study of ways in which bodies of knowledge and cognitive styles are produced, used, and transformed in everyday, organizational, and extraordinary environments. P/NP or letter grading.

128. Sociology of Emotions. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Designed for juniors/seniors. Sociological theories and explanations of social conditions shaping and producing emotional experiences; effects of individual expression of emotions on social conditions; relations between thought, sensations, and emotions; self and emotions; social construction of emotions. 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. Experience of time in primitive, ancient, and medieval societies; ritual, the sacred, and experience of the eternal; structuring of urban, modern, and postmodem societies by clock, calendar, and schedule; future value choices include individual progress; time, 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 experience, 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 contribution 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.


M136. Eating Society: Science and Politics of Food. (4) (Same as Food Studies M136 and Society and Genetics M136.) Lecture, three hours; discussion, one hour. Questions of food and health are both individual and social. Students gain tool to understand 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 threats. Topics include individual and social rammifications of microbiome science; understanding how human gut microbes and health are shaped by pasteurization, 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; understanding human and meta- bolic health to issues of sustainable agriculture, for example how pesticides and fertilizers diet to envi- ronments; and resilience of cultural food systems in face of environmental pollution as issue of reproduc- tive health. Letter grading.

M137. Historical Sociology of Urban/Rural Rela- tions and Food Production. (4) (Same as Food Studies M167.) Lecture, three hours; discussion, one hour. Examination of historical, cultural, political, and economic processes affecting food production in relation to urban and rural regions. Topics include food logistics such as storage, transportation, and distribution, as well as human popula- tion growth and migration, famine and hunger, and agricultural advances and environmental impacts. P/NP or letter grading.

M138. Death, Suicide, and Trauma. (4) (Same as Psychology M138.) Lecture, three hours; discussion, one hour. Requisite: course 1. Examination of the meaning and role of death and suicide in the individual life history, in societies and cultures, and state war, genocide, civil war, terrorism, and pogroms.

M141. Migration and Labor in墨西哥-U.S. Context. (5) Seminar, 20 hours. Mexico–U.S. migration is largest and oldest continuous international population flow of contemporary world. In recent decades, prompted by swift economic transformations, rural and urban Mexicans from every corner of Mexico have joined this migratory flow, settling well beyond southwestern region and into far-reaching areas of U.S. interior. Migration is binding U.S. and Mexico stronger than ever, putting the complex and multifaceted issues at top of bilateral agenda. Examination of sociological dynamics of international migration and labor as they apply to México-U.S. context, including demographic, political, and economic dynamics of migration, eco- nomic and social infrastructures that support cross-border mobility, and connections of migration with bi- national, national, regional, and local labor markets. Concepts and insights to contrast this flow with other contemporary population streams. Offered in summer only. Letter grading.

M142. Healthcare in Transitional Communities. (4) (Same as Public Health M131.) Lecture, three hours; discussion, one hour. Requisite: course 1. Examination of how researchers conduct research, 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 as researchers by conducting secondary and primary research culminating in a research paper to be presented to faculty members and peers. Offered in summer only. Letter grading.

796 / Sociology

M144. Stress and Society: Biology and Inequality. (4) (Same as Society and Genetics M144.) Lecture, three hours; discussion, one hour. Integrative view of health disparities, one of most pressing problems of society, through investigation of effects of socioeconomic status (SES) and disease, using specific lens of stress biology. Topics include introduction to fundamentals of physiology of stress, integration of literature on poverty and SES with studies on physiological consequences of poverty, and introduction 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 deviance 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. Sociological 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.

M148. Sociology of Mental Illness. (4) (Same as Dis- ability Studies M148.) Lecture, three hours; discussion, one hour. Analysis of major sociological and social psychological models of madness. Study of social processes involved in labeling, stigmatization, 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 ethical issues in juvenile jus- tice. P/NP or letter grading.

150. Sociology of Aging. (4) (Same as Geron- tology M150.) Lecture, three hours; discussion, one hour. Study of sociological processes shaping defini- tion, experience, and response to aging in contem- porary society. Topics include race, class, and gender in aging over life course; interpersonal relations and so- cial worlds of aged; caregiving relations and institu- tions; professions concerned with aged and aging. Letter grading.

152. Comparative Acculturation and Assimilation. (4) Lecture, three hours; discussion, one hour. Requi- site: course 151. Comparative acculturation and as- similation of Europeans, Africans, Mexicans, and Asians in the U.S., with emphasis on long-term cul- tural consequences of immigration. P/NP or letter grading.

M153. Chinese Immigration. (4) (Same as Asian American Studies M130C.) Lecture, three hours; dis- cussion, one hour. Survey of sociological studies of Chinese immigration, with focus on international con- text, organization, and institutions of Chinese America and its interactions with social environment. P/NP or letter grading.

154. Race and Ethnicity: International Perspec- tives. (4) Lecture, three hours; discussion, one hour. Open not to freshmen. Role of race and ethnicity in political, economic, and social lives of nations other than the U.S. 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. Explores social, historical, and cultural conditions in Latinos in Los Angeles as well as nationally, with par- ticular emphasis on their location in larger social struc- ture 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 at- tention to comparison of African American and Euro- pean American experiences and to transformation of Asian American and Latino communities and the na- tion 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. Introduction to fundamentals of social stratification in terms of evaluational 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; dis- cussion, one hour. Description and analysis of urban- ization 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 so- cially constructed. Topics include distinction between biological sex and sociological gender, causes and conse-quences of gender inequality, and recent changes in gender relations in modern industrial soci- eties. P/NP or letter grading.

M163. Gender and Work. (4) (Same as Gender Studies M163.) Lecture, three hours. Requisite: course 1 or Gender Studies 10. Exploration of relationship of gender to work, concentrating on the U.S. experience but also including some comparative material. Partic- ular emphasis on analysis of causes and conse- quences of job segregation by gender and of wage in- equality. P/NP or letter grading.

164. Politics of Reproduction. (4) (Same as Gender Studies M164.) Lecture, three hours; discussion, one hour. Title refers to intersection between polit- ics and life cycle. Topics include social construction of gender and population, reproductive issues, politizi- zation of health care, and relations between health and reproduction. P/NP or letter grading.

165. 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. Historical exploration of race, ethnicity, employment, and U.S. labor movement. Analysis of underlying racial divisions in workforce and how they evolved historically. Consid- eration of circumstances under which workers and unions have excluded people of color from jobs and unions, and how these circumstances have changed. P/NP or letter grading.

166. Organizations and Society. (4) Lecture, three hours; discussion, one hour. Sociological analysis of organizations and their social environment. Introduc- tion to basic theories, concepts, methods, and re- search on behavior of organizational members. P/NP or letter grading.

169. Law and Society. (4) Lecture, three hours; dis- cussion, one hour. Specific topics may include law in preindustrial and industrialized societies, legalization of contemporary social relations, participants' experi- ences of legal processes, legal professions, and their influences on equal justice, roles of lawyers and judges, social impact of court decisions. P/ NP or letter grading.

170. Medical Sociology. (4) Lecture, three hours; dis- cussion, one hour. Requisite: course 1. Provides ma- jors in Sociology and other social sciences, as well as students preparing for the health professions, with understandings of health-seeking behavior and inter- personal 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 profes- sions. Emphasis on contemporary U.S. P/NP or letter grading.

172. Entrepreneurship. (4) Lecture, three hours; dis- cussion, one hour. Description and analysis of entre- preneurship, with special reference to historical ori- gins, ideology, international comparisons, women 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.

M174. Sociology of Family. (4) (Same as Gender Studies M174.) Lecture, three hours; discussion, one hour. Study of family as social institution; functions of the 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. Sociology of Education. (5) (Same as Educa- tion M170.) Lecture, four hours; discussion, one hour. Study of how U.S. educational system both promotes socioeconomic opportunities and maintains socioeco- nomic inequalities: historical and theoretical perspec- tives on role of education in U.S. society; trends in edu- cational attainment; ways in which family back- ground, class, race, and gender affect educational achievement and attainment; stratification between and within schools; effects of education on socioeco- nomic attainment, family, health, attitudes, and social participation; educational policies to improve school quality and address socioeconomic inequalities. Letter grading.

M176. Sociology of Mass Communication. (4) (Same as Communication M147.) Lecture, four hours; discussion, one hour (when scheduled). Studies in re- lationship between mass media and social organization. Topics include history and organization of major media institutions, social forces that shape production of mass media news and entertainment, social impact of media content, and effects of media on society. P/NP or letter grading.

M178. Sociology of Caribbean. (4) (Same as African American Studies M178.) Lecture, three hours; dis- cussion, one hour. Limited to juniors/seniors. Historical sociology of Caribbean, with emphasis on colonialism and decolonization, development and underdevelop- ment, 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 sociolog- ical interest. Consult School of Social Science topics and instructors. May be repeated for credit and may be applied as elective units toward Sociology major. P/NP or letter grading.

181A-181B. Sociology of Contemporary China. (4- 5) Lecture, three hours; discussion, one hour. De- signed for juniors/seniors. Each course may be taken independently for credit. P/NP or letter grading. 181A. Exploration of 20th-century changes in China, in- cluding development of dynastic to modern Communist Revolution, and market reform. Topics include trans- formation in Chinese social structure and institutions and everyday practices. Survey of changes and analy- ses of shaping contemporary China, and global impact and current implications. 181B. 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 changes post-Reform Era and 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 to social organization that originated from studying Western societies.

182. Political Sociology. (4) Lecture, three hours; discussion, one hour. Contributions of sociology to study of politics, including analysis of political aspects of social systems, 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: course 201E. Emphasis on topics such as industrialization, work, state, politics, community, family, religion, and American culture. Theory 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 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 requisite: course 188SA. Enforced corequisite: Honors Collegium 101E. 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.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to seniors. Use of history of tobacco and cigarette smoking to explore important trends in sociology, history, and culture. History of tobacco from its roots in Native American culture, its contribution to foundation of European colonies in New World, its cultural incorporation in western Europe, its role in rise of industrial way of life and health consequences, and its demise as legitimate soft drug for modern urban people. Letter grading.

191A. Undergraduate Seminar: Self and Identity. (3) Seminar, three hours. Limited to junior/senior Sociology majors. Examination of cultural, historical, and interactional contexts shaping definition, enactment, and experience of self. Reading, discussion, and development of culminating project. Letter grading.


191C. Undergraduate Seminar: Money and Emotions. (3) Seminar, three hours. Limited to junior/senior Sociology majors. Selected topics. Reading, discussion, and development of culminating project. Letter grading.

191D. Undergraduate Seminar: Sociology of Development. (3) Seminar, three hours. Taught in Spanish. Selected topics on development in Third World from global perspective. Reading, discussion, and development of culminating project. Letter grading.

M191DC. CAPPW Washington, DC, Research Seminars. (5) Same as Communication M191DC, History M191DC, Political Science M191DC, and Public Affairs M191DC. Seminar, three hours. Limited to CAPP Program students. Seminars for undergraduate students in Center for American Politics and Public Policy’s program in Washington, DC. Focus on development of research skills and on conducting research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviewing, etc.), with consideration of research design. Examination of features of significant and research-intensive writing. Letter grading.


191F. Undergraduate Seminar: Sociology of Globalization. (5) Seminar, three hours. Limited to juniors/seniors. Great extension of social relations across globe has occurred over last 50 years. What are causes and mechanisms of this process, how far has it transformed human societies, and how will it go? Requisite: course 201E. Selection of socio-legal aspects of globalization, with focus on extent to which global expansion of capitalism, nation-state system, and American imperialism reinforce or undercut each other, producing new lines of division and conflict across world. Reading, discussion, and development of culminating project. Letter grading.


191I. Undergraduate Seminar: Health and Inequality. (5) Seminar, three hours. Limited to juniors/seniors. During past century, profound changes in health and survival were widening in the U.S. as in other developed societies. Broad overview of these trends and their causes. Reading, discussion, and development of culminating project. Letter grading.

191J. Undergraduate Seminar: Mexican Society. (5) Seminar, three hours. Selected topics on contemporary Mexican society and vital transformations it has undergone in recent years. Reading, discussion, and development of culminating project. Letter grading.

191K. Undergraduate Seminar: Cigarettes and Western Civilization—Sociological History of Smoking. (5) Seminar, three hours. Limited to juniors/seniors. Use of history of tobacco and cigarette smoking to explore important themes in sociology, history, and culture. History of tobacco from its roots in Native American culture, its contribution to foundation of European colonies in New World, its cultural incorporation in western Europe, its role in rise of industrial way of life and health consequences, and its demise as legitimate soft drug for modern urban people. Letter grading.

191L. Undergraduate Seminar: Environmental Justice and Sustainability. (5) Seminar, three hours. Limited to juniors/seniors. Sociological approach to study of environmental issues and problems. Topics include ecopolitics and ecofeminism, environmental racism, and global environmental change, sustainable develop-
191S. Undergraduate Seminar: Sociology of Gender and Sexuality. (3) 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, reproduction, discrimination, and privilege, independent of gender. Social factors such as social class, ethnicity, generation, and networks shape our sexual practices and choice of partners. Reading and writing about various aspects of sociological, historical, and anthropological texts and development of culminating project. Letter grading.

191T. Undergraduate Seminar: War and Society. (3) Seminar, limited to juniors and seniors. Study of relationship between society’s military and its social organization in general, with particular attention to shock-based civic militarism characteristic of the West. Topics include honor, discipline, bureaucratic, conscription, logistics, total war, guerrilla war, terrorism, and counterinsurgency. Reading, discussion, and development of culminating project. Letter grading.


Graduate Courses

201A-201B-201C. Proseminars in Sociology. (2–2–2) Seminar, two hours every other week. Required of first-year graduate sociology 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 fundamental substantive areas, and the methods of analysis used in social research, with focus on problems for which classical linear regression model is inappropriate, including categorical data, structural equations, longitudinal data, incomplete or censored data, and complex samples. S/U or letter grading.

201A-211B. Comparative and Historical Methods. (4–4) Lecture, three hours. In Progress (211A) and S/U or letter (211B) grading. 211A. 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 procedures of data collection, sampling, and experimental design. Techniques of data analysis, including use of man- script census, content analysis, collective biography, and secondary analysis.

211A. Quantitative Data Analysis. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 210A, 210B. Course 211A is enforced requisite to 212B. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice in utilizing statistical methods encountered in previous courses, culminating in term paper proposal in style of American Sociological Review or similar journal article. Topics include simple t-tests, analysis of variance, log-linear analysis, ordinary least squares regression, multiple regression, diagnostic procedures, and methods for handling complex survey designs. Credit will be given only on completion of course 212B.

213B. Applied Event History Analysis. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 210A, 210B. Course 213B is enforced requisite to 212B. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice in utilizing statistical methods encountered in previous courses, culminating in term paper proposal in style of American Sociological Review or similar journal article. Topics include multiple regression, diagnostic procedures, and methods for handling complex survey data. Credit will be given only on completion of course 212B.

210A-210B. Intermediate Statistical Methods I, II. (4–4) Lecture, three hours; discussion, two hours. Intermediate statistical methods using computers; probability theory, sampling distributions, hypothesis testing, interval estimation, multiple regression and correlation, experimental design, analysis of variance and covariance, contingency tables, sampling theory. S/U or letter grading.

212B. Quantitative Data Analysis. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 210A, 210B. Course 212B is enforced requisite to 212A. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice in utilizing statistical methods encountered in previous courses, culminating in term paper proposal in style of American Sociological Review or similar journal article. Topics include multiple regression, diagnostic procedures, and methods for handling complex survey designs. Credit will be given only on completion of course 212B.

202A-202B. Theory and Research in Sociology. (4–4) Lecture, two hours; discussion, two hours. Requisites: courses 210A, 210B. Course 212A is enforced requisite to 212B. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice in utilizing statistical methods encountered in previous courses, culminating in term paper proposal in style of American Sociological Review or similar journal article. Topics include multiple regression, diagnostic procedures, and methods for handling complex survey designs. Credit will be given only on completion of course 212B.

212B. Quantitative Data Analysis. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 210A, 210B. Course 212B is enforced requisite to 212B. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice in utilizing statistical methods encountered in previous courses, culminating in term paper proposal in style of American Sociological Review or similar journal article. Topics include multiple regression, diagnostic procedures, and methods for handling complex survey designs. Credit will be given only on completion of course 212B.

210A-210B. Intermediate Statistical Methods I, II. (4–4) Lecture, three hours; discussion, two hours. Intermediate statistical methods using computers; probability theory, sampling distributions, hypothesis testing, interval estimation, multiple regression and correlation, experimental design, analysis of variance and covariance, contingency tables, sampling theory. S/U or letter grading.

210C. Advanced Statistical Methods III. (4) Lecture, three hours; discussion, one hour. Requisite: courses 202A, 202B. Course 210C is enforced requisite to 212B. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice in utilizing statistical methods encountered in previous courses, culminating in term paper proposal in style of American Sociological Review or similar journal article. Topics include multiple regression, diagnostic procedures, and methods for handling complex survey designs. Credit will be given only on completion of course 212B.

212B. Quantitative Data Analysis. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 210A, 210B. Course 212B is enforced requisite to 212B. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice in utilizing statistical methods encountered in previous courses, culminating in term paper proposal in style of American Sociological Review or similar journal article. Topics include multiple regression, diagnostic procedures, and methods for handling complex survey designs. Credit will be given only on completion of course 212B.
event history models; piecewise exponential hazards; nonproportional hazards; parametric survival models; hazard modeling; multilevel survival models. S/U or letter grading.

M213C. Population Models and Dynamics. (4) (Formerly numbered 213C.) (Same as Community Health Sciences M207C.) Lecture, three hours. Requisite: course 213A. Population models and their dynamics in population processes. How demographic models are used in estimation of population size, age, structure, and associated dynamics. Computer simulations of demographic processes to gauge conclusions from demographic models. Estimation of demographic models of human population and broader-relevant demographic analysis of any population or system, including health and social systems. S/U or letter grading.

216A. Survey Research Design. (4) Lecture, three hours. Recommended requisite: course 210A. Past, present, and future of survey research; survey modes; survey errors; survey sampling; response rates; questionnaire design; reliability and validity of survey items; survey administration and management; ethics and costs. Letter grading.

216B. Survey Research Design. (4) Lecture, three hours. Enforced requisite: course 216A. Practical application of survey design skills. Students design and implement a survey project, source data collection projects and collectively review and evaluate their projects’ results and challenges. Letter grading.


217B-217C. Ethnographic Fieldwork. (4–4) Seminar, three hours. Recommended requisite: course 217A. Theories and techniques of ethnographic fieldwork. Kinds of problems amenable to ethnographic approaches, methods, and techniques for doing fieldwork, and ethical problems involved in such research. In Progress (217B) and letter (217C) grading.

220. Self and Society. (4) Lecture, four hours. Race, class, and 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 rarely confronted. The things that many times one or more of these go unrecognized. Exploration of multiple intersecting ways these concepts shape society, individual life chances, and daily social interactions for African Americans. Examination of race, class, and gender inequalities as individual aspects of social life. How race, class, gender and sexual identities shape societies and individual experiences in interaction with each other. How these inequalities perpetuate 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.


223. Phenomenological and Interactionist Perspectives on Selected Topics. (4) Lecture, three hours. Comparison of phenomenological and symbolic and perspectives by examining particular body of live or currently unresolved substantive issues. Topics vary; attention on development of phenomenological and interactionist thought on topic of concern, with special focus on sociology (along with history and philosophical) research program in field, linking North American, European, and other global experiences of immigration. S/U or letter grading.


236A. Lecture, three hours. Comparative 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 American, European, and other global experiences of immigration. S/U or letter grading.

236B. (4) (Same as Geography M224.) 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.

236C. (4) Lecture, three hours. Designed for students beginning or undertaking original research in field of international migration. Outside lectures, oral presentations of student projects, circulated of draft student papers that provide thorough examination of data and writing of research papers, and completion of independent research project. 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 or more of particular importance for comparative analysis of capitalism and socialism, North America and Western Europe, developed capitalist and socialist countries and Third World, and implications for theory construction and social research. S/U or letter grading.

238. Sociology of Gender and Sexuality. (4) (Same as Gender Studies M238.) Seminar, three hours. Designed for graduate students. Analysis of current American feminist theory relevant to sociologists. Exploration of critiques that have feminism by working class feminists and/or feminists of color, feminist scholars from other countries, and recent so-called antifeminist feminists. Discussion of directions for future feminist sociology. Letter grading.

239A-239B. Social Stratification, Mobility, and Inequality. (4–4) Lecture, three hours. Enforced requisites: courses 210A, 210B. Course 239A is enforced requisite to 239B. Introduction to literature on 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; education, fertility, schools, and socio- economic achievement, careers, and inequality; earnings, income, and wealth distribution; poverty; social mobility; socioeconomic factors and marriage; gender and ethnicity, stratification issues in other societies, such as elites. S/U or letter grading.

240. Sociology of Education. (4) Lecture, three hours. Overview of social scientific study of education, with special focus on sociology (along with history and philosophy). Examination of contemporary sociology of education’s focus on stratification at two levels. Examination of how scholars have studied schools’ role in maintaining or altering stratification and inequality by looking at quantitative and qualitative approaches to race, class, gender, and sexuality in education. Examination of how focus on stratification can exist alongside, provide foundation for, and/or obfuscate other longstanding commitments in study of schooling including moral character, citizenship, ethnic nationalism, and maintenance of particular economic, racial, and sexual order. Examination of classic philosophical texts and recent sociological and historical work on how broader structures of government, culture, and social institutions affect what schools do and what actors believe they are supposed to do. S/U or letter grading.

241. Theories of Gender in Society. (4) Lecture, one hour; discussion, two hours. Gender stratification in society and sociology: extent of gender diversity in human societies past and present. Gender is present in classical macrostructure; can masculinist paradigms make space for gender or does feminist-informed sociology necessitate fresh approach? S/U or letter grading.

Sociology / 799
C244A. 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. Currently 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. 244B. Requisite: course 244A. 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 actions. 244C. Requisite: courses 244A, 244B. Continuation of introduction to some structures basic to organization of conversational interaction: practices of action formation, storytelling organization, and overall social organization of single conversations.

245. Cultural Sociology: Classical and Contemporary Approaches. (4) Lecture, one hour; discussion, two hours. Exploration of classical approaches to cultural dimension of social life—Weberian, Durkheimian, Parsonsian, and critical—and living traditions they have spawned. Examination of contemporary efforts at constructing new cultural sociology. Theoretical focus, with consideration of case studies. S/U or letter grading.

246. Sociology of Culture. (4) Seminar, three hours. Theoretical and methodological issues in structural approaches to culture. Perspectives include cultural economy, political economy, and production of culture. S/U or letter grading.

247. Sociology of Emotions. (4) Lecture, two hours; discussion, one hour. Designed for graduate students. Sociological theories of emotional expression; experiential approaches to emotions: motivational, cognitive, psychophysiological, and behavioral; repression, social oppression, and emotions; creativity and expressed affect; thought, sensations, and emotions; specific experiences in emotions: expression; measurement of emotions. Letter grading.

248. Selected Topics in Culture and Society. (4) Seminar, three hours. Designed for graduate students. Seminar on selected topics on culture and society. Consult Schedule of Classes for topics and instructors. May be repeated for credit. S/U or letter grading.

M249. Culture, Brain, and Development. (4) (Same as Psychology M247.) Seminar, three hours. General introduction to the role 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.

250. Sociology of Health. (4) Seminar, three hours. Exploration of literature on sociology and health. Theoretical perspectives, including social causation theory, medicalization, and health policy. Focus on social, structural, and historical factors that shape health behavior, social interaction, and social organization in different contexts, including families, institutions, and communities. S/U or letter grading.

251. Social Movements. (4) Seminar, three hours. In-depth exploration of current theoretical debates and empirical studies of social movements, collective action, and contentious politics, examining case studies, comparative analyses, and large-N investigations, with a focus on understanding how social movements develop and function in different contexts.

252. 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) Seminar, three hours. Human reproduction and its regulation have long been a focus of contentious politics around the world. Reproductive politics refers both to biological and social reproduction; their interdependence shapes policies and practices pertaining to them. Government efforts to influence fertility behavior call attention to one important feature of modern states: political intervention into private life, intimacy, and sexuality. Politics of reproduction refers to coordination among political entities to ensure compatibility between public and private interests. Exploration of diverse aspects of politics of reproduction, their gendering, and their impact on changing family forms to encourage procreation and to facilitate reproduction technically, socially, and culturally. Topics may be repeated for credit. Letter grading.


255. Cross-Cultural Perspectives on Gender. (4) (Same as Gender Studies M255.) 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 united feminist movements possible or is gender too different cross-culturally? S/U or letter grading.


257. Demography of Marriage Formation and Dissolution. (4) Discussion, three hours. Requisite: course 210A. Extensive and critical examination of major approaches to marriage formation and dissolution, with focus primarily on demographic literature. S/U or letter grading.

258. Talk and Social Institutions. (4) Lecture, four hours; discussion, one hour. Practices of communica- tion and social interaction in number of major institutional sites in contemporary society. Setting varies but may include emergency services, police and courts, medicine, news interviews, and political oratory. Consult Schedule of Classes for topics and instructors. May be repeated for credit. S/U or letter grading.


262. Black Families and Relationships. (4) (Same as African American Studies M200C.) Seminar, three hours. Examination of social, cultural, and historical forces that affect family formation and dissolution and the theoretical framework that explains these forces. Examination of family life for both middle- and working-class black populations. Letter grading.

263. Social Demography of Los Angeles. (4) (Same as Community Health Sciences M263.) Lecture, two hours; discussion, one hour. Use of city of Los Angeles to examine major social and demographic factors that characterize cities in the U.S. Examination of role of these factors in affecting health outcomes.


266. Selected Problems in Analysis of Conversa- tion. (4) Lecture, three hours. Requisite: courses 244A, 244B. Variable topics and 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.

268. Selected Problems in Psychoanalytic Sociolo- gy. (4) Seminar, three hours. Offered for credit in preparation for at least one year of methods courses. Selected problems in interpretation of sociology and psychoanalysis, which may be substantive group develop- ment, socialization, culture, deviance, collective behavior) or methodological; latter focuses on clinical fieldwork and experimental use of psychoanalytic and sociological techniques. S/U or letter grading.

272. Topics in Political Sociology. (4) Lecture, four hours. S/U or 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. Possible topics include social movements, race and ethnicity, stratification, and social development. Letter grading.

M280. Trafficking, Gender, Health, and Human Rights. (4) (Same as Law M577.) Seminar, four hours. Review and critical assessment of international trafficking of international traffic of persons, with emphasis on sig- nificance of sociological, legal, and gender aspects of trafficking. Primary focus on trafficking for sex work and black market lines between legal and illegal and 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 Sociolo- gy. (4) Lecture, three hours. Exploration of some mathematical models of sociocultural processes. Poss- ible topics include models of small groups, social mobility, kinship relations, organizations, social inter- action. S/U or letter grading.

282. Sociology of Medicine. (4) Seminar, three hours. Review of major concepts and issues in soci- ology of medicine. Topics include medicine, culture, and capitalism, professions and power, challenge of managed care, sick role and social control, interac- tionism and negotiation of sickness, sickness and self, debates over medicalization and demedicalization. Designed as preparation for field examination in soci- ology of health and medicine and specifically for those enrolled in medical anthropology. Consult 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 nature and 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 analyzed. S/U or letter grading.


287. Topics in Chinese Society. (4) Seminar, three hours. Preparation: at least two upper-division courses in China in any social sciences discipline. In- troduction to current research on topics in Chinese sociology, as well as major themes in study of Chinese society, both historical and contemporary, including demographic, economic, political, and social change since 1949. S/U or letter grading.

289A–289B. Practicum in Conversation Analysis. (2–4) Requisite: courses 244A, 244B. S/U grading.

289A. Data Analysis. Laboratory, two hours. Practice in analysis of conversation data, which may be repeated for credit. S/U or letter grading.

289B. Developing Work in Progress. Seminar,
three hours. Opportunity to advance research projects in progress and to develop skills of constructive criticism in discussing work of others.

295. Working Group in Sociology. (1 to 4) Discussion, two hours. Variable topics, including sociology of gender; ethnography; social networks; race, ethnicity, immigration; and social demography and stratification. Advanced study and analysis of current topics in specialized areas of sociology. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

297. 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 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, question of gentrification, immigration, urban culture (especially art, museums, and movie and music industries), and environmentalism. Concurrently scheduled with course C191N. Letter grading.

298. 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 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. Supervised Teaching of Sociology, (2) Seminar, two hours. Preparation: appointment as teaching assistant in Sociology Department. Special course for teaching assistants designed to deal with problems and techniques of teaching introductory sociology. 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.


SPANISH AND PORTUGUESE

College of Letters and Science
5310 Rolfe Hall
Box 951532
Los Angeles, CA 90095-1532

Spanish and Portuguese
310-825-1036

Department e-mail
Rosina M. Becerra, PhD, Chair

Faculty Roster

Professors
Adriana J. Bergero, PhD
Héctor V. Calderón, PhD
Verónica Cortínez, PhD
John C. Dagenais, PhD
Maria (Máite) T. de Zubiarrain, PhD
Barbara Fuchs, PhD
Efraín Kristal, PhD
José Luiz Passos, PhD
A. Carlos Quicoli, PhD
Jesús Torreguera, PhD
Maarten H. van Deelen, PhD

Professors Emeriti
Rubén A. Benitez, PhD
E. Mayone Dias, PhD
Joaquín Gimeno, PhD
J. Randal Johnson, PhD
Gerardo A. Luzuriaga, PhD
C. Brian Morris, Littd
C.P. Otero, PhD
José Pascual Buño, PhD
Enrique Rodríguez-Cepeda, PhD
Teófilo F. Ruiz, PhD
Paul C. Smith, PhD

Associate Professor
Jorge Marturano, PhD

Assistant Professors
Patricia Arroyo Calderón, PhD
Ji-Young Kim, PhD
Patricia Lino, PhD
Victoria E. Mateu, PhD
Javier Patiño Loira, PhD

Lecturers
Greg D. Cohen, PhD
Luz María de la Torre, MA

Adjunct Associate Professor
Jimena N. Rodríguez, PhD

Adjunct Assistant Professor
Stephen C. Tobin, PhD

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 their chosen course of study 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 Chicano 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

Spanish 1 through 3 use Unidos. The method is inductive. Selected examples are given to enable students to inductively grasp the rules and develop their own grammar. This enables students to use language effectively and creatively. The courses are taught entirely in Spanish—students simultaneously learn to understand, speak, read, and write Spanish.

Students with one or more years of high school Spanish who plan to enroll in Spanish 1 through 25 should take the departmental online 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 course-
work. 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

**Preparation for the Major**

**Required:** Spanish 25 or 27, 42, 44.

**Policies**
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.

**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.

**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).

**Policies**
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 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 counsel.

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 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.

**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:

- Demonstrated written and conversational mastery of the Spanish language
- Conduct and interpret research to determine the needs of specific communities
- Demonstrated critical understanding of, and ability to apply, theories within a service context
- Demonstrated sensitivity to diversity and cultural differences
- Performance of scholarly presentations that tie current issues to research and theory
- Articulation of the value of civic engagement

**Preparation for the Major**

**Required:** Spanish 25 (or 27), M35 (or Portuguese M35), 42, 44.

**Policies**
Each course must be taken for a letter grade and passed with a grade of C or better.

A minimum of 46 units applied toward the major requirements must be in addition to units applied toward major or minor requirements in another department or program.

By petition, and after consultation with the undergraduate adviser, up to three 4-unit Spanish 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.

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.

**Spanish and Linguistics BA**

**Learning Outcomes**
The Spanish and Linguistics major has the following learning outcomes:

- Demonstrated technical mastery of the Spanish language, including pronunciation (phonetics and phonology), history (historical linguistics), and structure (syntax)
- Demonstration of how to do basic spoken language research in Spanish linguistics, emphasis-
Preparation for the Major

Required: Linguistics 20 (with grade of B– or better), Spanish 25 or 27, M35 (or Portuguese M35), 42 or 44.

Policies

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.

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.

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.

Policies

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

Preparation for the Major

Required: Portuguese 25 or 26 or 27 (27 recommended), M35 (or Spanish M35), 42, Spanish 25 or 27, 42 or 44.

Policies

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.

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.

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.

Policies

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, 199, Spanish 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.

Portuguese and Brazilian Studies BA

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

Preparation for the Major

Required: Portuguese 25 or 26 or 27 (27 recommended), 46.

Policies

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.

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 Brazilian Studies major course or one Brazilian Studies minor and three of which must be from Spanish 160.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

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.

Policies
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.

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.

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.

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 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.

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 9A, 8B, 8C, or Spanish 44.
Required Upper-Division Courses (20 to 22 units):
Three Mexican culture and literature courses selected from Spanish 135 through 175 in consultation with the undergraduate adviser and two courses from Anthropology 114R, Chicana/o and Central American Studies 1102, 1108A, 120, 125, 132, 142, 172, 184, Ethnomusicology M108A, 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.

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.
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 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.

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 units):
Spanish Linguistics Minor

Policies
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.
Guidelines may be outlined in announcements, on the graduate division website. In many cases, more detailed requirements are described in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Major
Hispanic Languages and Literatures CPhil, PhD

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Portuguese MA

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Spanish MA

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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


M5A-MSB-M5C. Intermediate Nahuatl (4-4-4). (Same as Chicana/o and Central American Studies M5A-MSB-M5C and International and Area Studies M5A-MSB-M5C.) Lecture, five hours. Course M5A is enforced requisite to MSB, which is enforced requisite to M5C. Introduction to Aztec language of central Mexico. Coverage of basic 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.

18A-18B-18C. Elementary Quechua. (4-4-4) Lecture, five hours. Course 18A is enforced requisite to 18B, which is enforced requisite to 18C. Language of Incas and present-day Quechua language, as spoken in Andean South America. 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 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, one to two terms, to intensive 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
M115A-M115B-M115C. Advanced Nahuatl (4-4-4). (Same as Chicana/o and Central American Studies M115A-M115B-M115C.) Lecture, five hours. Enforced requisites: courses M15A, M15B, M15C. Course M115A is requisite to M115B, which is requisite to M115C. 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.


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 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
596. Directed Studies in Quechua. (1 to 8) Tutorial, to be arranged. Requisite: courses 119A, 119B, 119C. Directed individual study or research in Quechua. Four units may be applied toward MA course 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. 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 conversational skills through discussions, presentations, participation in events, and other communicative situations. Among other elements of speech, use 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.

8B. Portuguese Conversation. (2) Discussion, 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.

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 communi-
cative competence in four language skills: listen-
ing, speaking, reading, and writing. Development of cultural awareness of heterogeneous Portuguese-
speaking community in America, Europe, and Africa. Intensive accelerated course designed to help stu-
dents increase their ability to communicate in Portu-
geuse. 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.


25A. Advanced Portuguese: Summer Course. (4) Lecture, 20 hours. Enforced requisite: course 3 or 11B. Advanced Portuguese course with cultural activ-
ties, field trips, and luncheons. Offered in summer only. P/NP or letter grading.

28. Language and Popular Culture. (4) Lecture, three hours. Enforced requisite: course 3, 11B, or upper-division speaking, reading, and writing skills. Structured in thematic units, with songs, videos, and specific vo-
cabulary emphasizing questions of Brazilian cultural identity. 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 cul-
tural 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. Enforced requisite: course 3 or 11B. Further development of communicative skills, especially writing. Discussions and activities increase knowledge and ability to comprehend variety of forms of cultural production in Portuguese language. Students contin-
tue 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 Lan-
guage. (5) Seminar. 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 communi-
tings, literary uses. Study of language and its relation to other areas of human knowledge. P/NP or letter grading.

40A–40B. Portuguese, Brazilian, and African Literature in Translation. (4–5) Lecture. Reading and dis-
cussion of selected works in translation. Papers and examinations in English. P/NP or letter grading. 40A. Portuguese and Portuguese-African Literature. Lecture, three hours; 40B. Brazilian Literature. Lecture, four hours.

46. Brazil and Portuguese-Speaking World. (5) Lecture, four hours; discussion, one hour (when sched-
uled). Taught in Portuguese. Thematic analysis of history of Brazil in context of Portuguese-speaking

world, with emphasis on comparative, trans-Atlantic relations, social development, and artistic manifesta-
tions. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Lim-
ited to 20 students. Designed as adjunct to lower-divi-
sion lecture course. Exploration of topics in greater depth than through typical homework assignments, 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, 2) Tutorial, three hours. Limited to students in College Honors Program. De-
signed as adjunct to lower-division lecture course. In-
dividual students under guidance of faculty mentor. Stud-
ents 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.

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. 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

100A. Phonology and Morphology. (4) Lecture, four hours. Enforced requisite: course 27. Analysis of phonetic, phonemic, and morphological systems of Portu-
geuse. P/NP or letter grading.

100B. Syntax. (4) Lecture, four hours. Enforced requisi-
t: course 27. Review of patterns of Portuguese lan-
guage. P/NP or letter grading.

M122. Foundations in Visual Culture in Iberian, Lat-
in American, and Luso-Brazilian Worlds. (4) (Same as Spanish M122.) Lecture, 20 hours. Requisite:
course 25 or 26 or 27 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 mate-
rials—from 16th-century maps of Americas to You-
tube 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, ob-
jects of study, and interdisciplinary critical frameworks of field of visual culture studies. By examining mani-
festations of visualization, Latin American, and Luso-Brazilian contexts, students gain cul-
turally specific foundations of visual knowledge and skills of visual literacy. P/NP or letter grading.

130A-130B. Introduction to Literature in Portu-
geuse. (4–4) Lecture, four hours. 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 intertextu-
ality and dialogism, interactions between literary and cinematic fields, question of fidelity, and equivalents between literary and cinematic expression in Portu-
geuse-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 develop-
ment, evolution, and impact of film and television in Brazil against backdrop of broader social, historical, and cultural contexts. 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 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. Indi-
vidual 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 contract re-
quired. Honors content noted on transcript. Letter grading.

191. Undergraduate Variable Topics Seminars: Por-
tuguese. (1) Seminar, three hours. Requisite: course 25 or 26 or 27. Research seminar on selected topics in Portuguese. Reading, discussion, and development of culminating project. Consult Schedule of Classes or
department counselor for topic to be offered in specific terms. 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 Internships 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 knowledge acquired in classes and research in real-world setting through 8–10 hours per week of voluntary work on- or off-campus in organization or unit serving Brazilian and Portuguese-speaking community. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in Portuguese, (2 to 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. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.


199. Directed Research in Portuguese, (2 to 4) Tutorial, to be arranged. Requisite: course 27. Limited to seniors. Supervised individual research under guidance of faculty mentor. Cullminating paper required. Eight units of courses 199 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 Spanish M200.) Lecture, three hours. Identification and use of research resources for graduate students.


M202. Synchronic Morphology and Phonology, (4) Lecture, three hours. Study of theoretical synchronic linguistics as applied to Portuguese.

M204A-204B. Generative Grammar, (4–4) Lecture, three hours. Course 204A is requisite to 204B. Generative approach to the Portuguese language, with some consideration of bearing of syntax, semantics, and phonology on style, metaphor, and meter.

M205A-M205B. Development of Portuguese and Spanish Languages, (4–4) (Same as Spanish M205A-M205B.) Lecture, three hours. Intensive study of historical development of Portuguese and Spanish languages from their origin in spoken Latin.


227. 19th-Century Portuguese Literature, (4) Lecture, three hours. Enforced requisite: course 27. Study of principal features through representative works. May be repeated for credit with topic change. S/U or letter grading.


229. 20th-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.

230. Colonial Brazilian Literature and Culture. (4) Lecture, three hours. Enforced requisite: course 27. Study of most important authors to 1930. May be repeated for credit with topic change. S/U or letter grading.


235. 20th-Century Brazilian Literature, (4) Lecture, three hours. Requisite: one year of high school Spanish. May be repeated for credit with topic change. S/U or letter grading.

237. 20th-Century Brazilian 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.

238. 20th-Century Brazilian Literature, (4) Lecture, three hours. Enforced requisite: course 27. Study of principal characters of Brazilian modernism through representative works. S/U or letter grading.

254. Studies in Early Brazilian Literature, (4) 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 department. S/U or letter grading.


290. Special Topics. (4) Discussion, two hours. Designed for graduate students. Consult Schedule of Classes or department counselor for topics to be offered in a specific term. S/U or letter grading.

296. Graduate Research Group, (2) Research group meeting, two hours. Limited to graduate students. Designed to bring together graduate students in seminar setting with one or more faculty members to discuss and critique individual research projects, especially dissertation research. 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 a faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U or letter grading.

596. Directed Individual Study or Research, (4 or 8) Tutorial, to be arranged. Study or research in areas or subjects not offered as regular courses. No more than 8 units may be applied toward MA course requirements. S/U or letter grading.

597. Preparation for Graduate Examinations. (4 or 8) Tutorial, to be arranged. Preparation: official acceptance of candidacy by department. Individual preparation for MA comprehensive examination or PhD qualifying examinations. May be taken only once for degree examination and only in term that comprehensive or qualifying examinations are to be taken. S/U grading.


Spanish Lower-Division Courses

1. Elementary Spanish, (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. 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.

2G. Reading Course for Graduate Students, (4) Lecture, three hours. Knowledge of Spanish not required. May not be applied toward degree requirements. S/U grading.

2. Elementary Spanish, (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. 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.

2A. Intensive Spanish, (4) Lecture, 20 hours; laboratory, five hours. Enforced requisite: course 1 or one year of high school Spanish. Intensive course in Spanish, with cultural activities, field trips, luncheons. Offered in summer only. P/NP or letter grading.

2G. Reading Course for Graduate Students, (4) Lecture, three hours. Enforced requisite: course 1G. May not be applied toward degree requirements. S/U grading.

3. Elementary Spanish, (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. Introductory 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 conversation, 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.

3A. Intensive Spanish, (4) Lecture, 20 hours; laboratory, five hours. Enforced requisite: course 1 or one year of high school Spanish. Intensive basic course in Spanish, with cultural activities, field trips, luncheons. Offered in summer only. P/NP or letter grading.

4. 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 conversation, 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 conversation, 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.
past, present, and future events, and expression of preferences, feelings, beliefs, and opinions. P/NP or letter grading.

7A. Introductory Spanish for Heritage Speakers. (4) Lecture, three hours; laboratory, two hours. Labo-

ratory is online. Designed for students who are from Spanish-speaking families and have some knowledge of Spanish. Introductory 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.

7B. Intermediate Spanish for Heritage Speakers. (4) Lecture, three hours; laboratory, two hours. En-

forced requisites: course 6A 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.

8A-9B. Spanish Conversation. (2–2) Discussion, three hours. Course 8A is open to students with credit for course 4. Students who have completed course 3 with a grade of B or better may be admitted. P/NP or letter grading.

8A-BB. Spanish Conversation. (2–2) Discussion, three hours. Enforced requisite: course 8B. 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 His-

panic culture. Offered in summer only, P/NP or letter grading.

11A-11B. Catalan Language and Culture I, II. (4–4) Lecture, two hours. Introduction to oral and written Catalan language. Two-termed accelerated language se-

quence equivalent to three terms of traditional pattern and designed for advanced undergraduate and grad-

uate students. P/NP or letter grading. 11A. Prepa-

ration: at least two years of college-level Spanish, Portu-

guese, or another Romance language other than Cat-

alan. 11B. Requisite: course 11A.

12A-12B-12C. Basque Language and Culture I, II, III. (4–4–4) Lecture, five hours. Introduction to Basque lan-

guage and culture. Three-term sequence with emphasis on listening, speaking, reading, writing, and cultural competence, P/NP or letter grading. 12B. Requisite: use course 12A. 12C. Requisite: course 12B.

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 freshmen. P/NP or letter grading. 11A. Prepa-

ration: at least two years of college-level Spanish, Portu-

guese, or another Romance language other than Cat-

alan. 11B. Requisite: course 11A.

25. Advanced Spanish Composition. (4) Lecture, three hours. Requisite: course 5. Emphasis on de-

velopment of communicative abilities, both verbal and written, as well as on increasing comprehension of va-

riety of forms of cultural production in Spanish lan-

guage and on preparation for more advanced Spanish courses. P/NP or letter grading.

27. Advanced Spanish Composition for Heritage Speakers. (4) Lecture, four hours. Written and oral com-


28A. Spanish for Special Purposes: Medical. (4) Lecture, three hours. Requisite: course 3. Practice in speaking, reading, and writing Spanish using appropriate vocabulary and cultural situations for students with specific needs, such as medicine, business, law, etc. P/NP or letter grading.

M35. Spanish, Portuguese, and Nature of Lan-

guage. (5) Same as Portuguese 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 set-
tings, 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; discus-

sion, one hour. Requisite: majors. Lectures taught in English; discussion sections taught in either Spanish or English. Highlights of civilization of Spain, with em-

phasis on artistic, economic, social, and historical de-

velopment as background for upper-division courses. P/NP or letter grading.

44. Latin American Cultures. (5) Lecture, four hours; discussion, one hour. Requisite of majors. Lectures taught in English; discussion sections taught in either Spanish or English. Highlights of civilization of Spanish America, with emphasis on artistic, eco-

nomic, social, and historical development as back-

ground 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 anal-
ysis of selected works in translation. Classroom dis-
cussion, papers, and examinations in English. 60A. Spanish Literature. 60B. Spanish-American Literature. 60C. Don Quijote.

88A-88Z. Lower-Division Seminars. (4 each) Semi-
nar, three hours. Knowledge of Spanish not essential. Variable topics courses designed to explore various themes and issues pertinent to Hispanic literature and culture.

89. Honors Seminars. (1) Seminar, three hours. Lim-

ited to 20 students. Designed as adjunct to lower-divi-
sion courses. Focus on major literary movements and writers of 18th, 19th, and 20th centuries, with emphasis on written traditions. 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 course. In-
dividual 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 stu-
dents. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-

signed as adjunct to lower-division course. In-
dividual 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 stu-
dents. Honors content noted on transcript. Letter,

g grading.

97. Variable Topics in Spanish. (2) Lecture, two hours. Variable topics course with lectures, discus-
sions, and papers; consult Schedule of Classes or de-

partment counselor for topic to be offered in specific term. May be repeated for credit. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (sup-

ervised 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-

rollment section (when scheduled). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

100A-100B. Introduction to Study of Spanish Gram-

mar. (4–4) Lecture, four hours. Requisite: course M35. P/NP or letter grading. 100A. Phonology and Morphology. Analysis of phonemic and morphological systems of Spanish. 100B. Syntax. Study of syntac-
tical systems of Spanish, designed to explore topics of current intellectual importance, taught by faculty members. Open to freshmen. P/NP or letter grading.


119. Introduction to Literary Analysis. (4) Lecture, four hours. Requisite: course 25 or 27. Introduction to methods of analyzing literary work in Spanish, French, Italian, Portuguese, and Catalan. Special attention to major genres: poetry, narra-
tive, drama, and essay. P/NP or letter grading.

120. Literature in Historical Context. (4) Lecture, four hours. Discussion, one hour. Requisites: course 25 or 27 or Portuguese 25 or 27. Taught in English. Addresses specific cultural traditions in Spanish- and Portuguese-speaking worlds. Through critical engagement with wide range of visual mate-

tials—from 16th-century maps of Americas to You-

This course uses street protest: filmmaker architectural designs for new national capitals to tele-

novelas and colonial photographs; and everything in between—introduction to practices, processes, ob-

jects, and identities, and interdisciplinary frameworks of field of visual culture studies. By examining mani-

festations of visual culture from Iberian, Latin Ameri-
can, and Luso-Brazilian contexts, students gain cul-
turally 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. Explora-
tion of medieval Iberian literatures: lyric poetry, prose, and history of peninsular, with emphasis on its literary and linguistic diversity. Possible topics include Convi-

vencia (peaceful coexistence), Europe and Orient, be-
ginnings of Inquisition, oral versus written traditions, origins of Hispano-Christian expansion beyond penin-
sula, and flowering of Al-Andalus. 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. Requisites include Spanish 25 or 27. Taught in Spanish. Addresses specific cultural traditions in Spanish- and Portuguese-speaking worlds. Through critical engagement with wide range of visual mate-

tials—from 16th-century maps of Americas to You-

This course uses street protest: filmmaker architectural designs for new national capitals to tele-

novelas and colonial photographs; and everything in between—introduction to practices, processes, ob-

jects, and identities, and interdisciplinary frameworks of field of visual culture studies. By examining mani-

festations of visual culture from Iberian, Latin Ameri-
can, and Luso-Brazilian contexts, students gain cul-
turally specific foundations of visual knowledge and skills of visual literacy. P/NP or letter grading.

140. Topics in Modern Studies. (4) Lecture, four hours. Requisites: courses 25 or 27, and 119. Explora-
tion of major literary movements and writers of 18th and 19th centuries in Spain and Spanish America. Possible topics include Enlightenment, Romanticism, modernity, visual literacy, architecture, and works by Cadalso, Concolcorvo, Lizardo, Larra, Sarmiento, Bécquer, Isaacs, Mera, Villaverde, and Galdós. May be repeated for credit with topic change. P/NP or letter grading.

M145A. Introduction to Chicano Literature: Litera-

ture to 1960. (4) (Same as Chicano/o and Central American Studies M145A.) Lecture, three hours. Re-

quisites: courses 25 or 27. Taught in English. Focuses on ideologically and culturally specific aspects of Chicano literary heritage. Sampling of genres, as well as historical and geographical settings and points of view characteristic of work written by Chi-

canos during 20th century. Most required reading in Spanish. Bilingual and English works included and discussed. Reading and analysis of number of im-

portant scholarly and critical statements pertaining to characteristics and development of Chicano literary corpus. 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, gender, autobiography, cultural, border literature, and postmodern fiction. May be repeated for credit with topic change. P/NP or letter grading.

154A. Chicano Narrative. (4) Same as Chicana/o and Central American Studies M146A. Lecture, three hours. Enforced requisite: course 25 or 27. Examination of major Chicano narrative genres—novel, romance, satire, autobiography, cronicel/sententia, Chicana detective novel, and Chicana solidarity fiction. Texts examined within their own geographic, cultural, and historical contexts, as well as within history of narrative forms.


155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Exploration of literature and culture of U.S. Latino communities, including literatures and experiences that are outgrowth of civil rights movements of 1960s, recent demographic changes, new transnational identities, and mixed citizenships of U.S. Latinos and Latinas. May be repeated for credit with topic change. P/NP or letter grading.

156. Topics in Spanish Linguistics. (4) Lecture, four hours. Requisite: course 25 or 27. Exploration of origin of language, how Spanish is acquired, evolution of Spanish from Latin to early modern period, how Spanish is used, and how to teach Spanish. Spanish in contact with other languages. Possible topics include Spanish in Los Angeles, history of Spanish in U.S., Puerto Rican, Cuban American, Central American, Central American, South American-American, and Jewish Latino literatures may be included. May be repeated for credit with topic change. P/NP or letter grading.

160. Topics in Spanish Literatures. (4) Lecture, four hours. Requisite: course 25 or 27. Exploration of origin of language, how Spanish is acquired, evolution of Spanish from Latin to early modern period, how Spanish is used, and how to teach Spanish. Spanish in contact with other languages. Possible topics include Spanish in Los Angeles, history of Spanish in U.S., Puerto Rican, Cuban American, Central American, South American-American, and Jewish Latino literatures may be included. May be repeated for credit with topic change. P/NP or letter grading.

165X. Taking It to Street: Spanish in Community. (5) Formerly numbered M165SL. Lecture, three hours; fieldwork, 10 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 Media, Interdisciplinary, and Trans-national Studies. (4) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 25 or 27, 119. Interrelation between print, visual, and live arts, and way they exist in mass media, new technologies, and different platforms. Possible topics include visual cultures in Latin America, Latin American and Spanish cinema, musical cultures and literature, live arts and performance in popular culture, three-dimensional modeling of material culture, and architecture of medieval Iberia. May be repeated for credit with topic change. P/NP or letter grading.

172XP. Latinos, Linguistics, and Literacy. (5) Formerly numbered M172X. Lecture, three hours; field project, four to six hours. Enforced requisite: course 250A. In-depth study of various topics related to literacy (including different definitions of literacy, programs for adult preliterates, literacy and gender, approaches to literacy (whole language, phonics, Freire’s liberation pedagogy)), history of writing systems, phoneme as basis for alphabetic writing, and national literacy campaigns. Required field project involving Spanish-speaking adults in adult literacy programs. P/NP or letter grading.

175. Topics in Creative Writing and Translation. (4) Seminar, three hours. Requisites: courses 25 or 27, and 119. Exploration of different forms of creative writing. Guest speakers or instructors include professional 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.

187A-187B. Advanced Tutorial in Community and Culture I, II. (1–2) Lecture, one hour. Requisite: course or permission of instructor. Advanced tutorial that explores transculturation and heterogeneity, race and ethnicity, gender, autobiography, cultural, and historical contexts, as well as within history of narrative forms. 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.

191A. Variable Topics in Spanish: Studies in Hispanic Literature and Linguistics. (4) Seminar, three hours. Limited to 15 junior/senior Spanish majors. Includes writing 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 119, 120, and at least three upper-division elective courses required for majors. Limited to senior Spanish majors. Knowledge from previous coursework used to address current trends in discipline; 18A may be repeated once for credit. P/NP or letter grading.

195. Community Internships in Spanish. (4) Seminar, one hour; fieldwork, 10 hours. Requisite: course 25 or 27 from previous coursework used to address current trends in discipline; 18A may be repeated once for credit. Individual contract required. P/NP or letter grading.

196A-196B. Generative Syntax and Semantics. (4–6) Lecture, three hours; fieldwork, 10 hours. Enforced requisite: course 100A. In-depth study of various topics related to literacy (including different definitions of literacy, programs for adult preliterates, literacy and gender, approaches to literacy (whole language, phonics, Freire’s liberation pedagogy)), history of writing systems, phoneme as basis for alphabetic writing, and national literacy campaigns. Required field project involving Spanish-speaking adults in adult literacy programs. P/NP or letter grading.

199. Directed Research in Spanish. (2 to 4) Tutorial, to be arranged. Requisite: course 25. Limited to junior/senior Spanish majors. 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 M2020. 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.

M202A-202B. Seminar in Portuguese and Spanish Literature. (4-4) Lecture, three hours. Study of the sound structure of Spanish and main phonological processes that map underlying representations into surface representations. Bearing of phonological theory on metrical, syntactic and semantic structure of literature.

M205A-M205B. Development of Portuguese and Spanish Languages. (4-4) Same as Portuguese M205A-M205B. Lecture, three hours. Intensive study of historical development of Portuguese and Spanish languages from their origins in spoken Latin.

M209. 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 indigenous languages, to their formation.

M211. Medieval Lyric Poetry. (4) Lecture, three hours. Readings and lectures on Spanish lyric poetry from the beginning to 1500.

M212. Medieval Epic and Narrative Poetry. (4) Lecture, three hours. Readings of and lectures on Spanish epic and narrative poetry from the beginning to 1500.

M223. Medieval Prose. (4) Lecture, three hours. Readings of and lectures on Spanish prose from the beginning to 1500.

M231. Medieval and Romanesque Literature. (4) Lecture, three hours. Readings of and lectures on Spanish poetry from 1500 to 1700.

M235. Drama of the Golden Age. (4) Lecture, three hours. Readings of and lectures on Spanish poetry from 1500 to 1700.

M240. The Golden Age. (4) Lecture, three hours. Readings of and lectures on the comedic.

M241. The Golden Age. (4) Lecture, three hours. Readings of and lectures on fictional, didactic, religious, and historical writings.


M288. The Enlightenment. (4) Lecture, three hours. Readings of and lectures on representative works of the period.

M312. Romanticism. (4) Lecture, three hours. Readings of and lectures on representative works of the period.

M313. Realism and Naturalism. (4) Lecture, three hours. Readings of and lectures on literary works of realism and naturalism.

M314. Major Currents in Modern Spanish Literature. (4) Lecture, three hours. Introduction to major literary currents, including symbolism, Parnassianism, and the Generation of 1898.

M315. Prose of Poetry 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.
Lecturers
Akram M. Almoalwas, PhD
Maria Cha, PhD
Miles S. Chen, PhD
Michael Tsiang, PhD
Bingling Wang, PhD
Guani Wu, PhD
Linda A. Zanontian, PhD
David A. Zes, PhD
Adjunct Associate Professor
Ivaylo D. Dinov, PhD
Adjunct Assistant Professors
Katherine M. Mullen, PhD
Chenlu Shi, PhD
Alan R. Vázquez-Alcocer, PhD

Overview
With the advent of fast computing and the subsequent flood of data detailing almost every aspect of our daily lives comes an urgent need for scientists trained in modern statistical methodologies.

Both the undergraduate and graduate programs in the Department of Statistics are structured around three core course sequences that introduce students to the science of data: theoretical statistics, data analysis, and statistical computing. This balance reflects the scale and complexity of problems that statisticians are now routinely called to address. Additional course offerings reflect the work of faculty members in bioinformatics, social networks, environmental studies, and computer vision.

Courses and workshops for secondary school teachers of statistics are also offered in order to promote sound statistics pedagogy throughout the curriculum.

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 Vision, Cognition, Learning, and Autonomy; Center for Statistical Research in Computational Biology; and Center for the Teaching of Statistics.

Undergraduate Majors

Statistics BS
The Statistics 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 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 premajor.

Capstone Major
The Statistics 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 non-technical audiences.

Learning Outcomes
The Statistics major has the following learning outcomes:

- Ability to restate an investigative question in terms of a 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
- Demonstrate ability to find research literature appropriate to the investigative task
- Deliver reproducible statistical analyses using accepted practices of the research community
- Demonstrate ability to verbally and orally communicate statistical results to both technical and non-technical audiences

Premajor
Incoming first-year and transfer students may be admitted as Statistics premajors on acceptance to UCLA. Premajor 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 premajor requirements may declare the major with the undergraduate adviser in 8117A as their major requirements.

Statistics 10 through 13 may be selected in consultation with the department.

Elective courses from outside the department are strongly encouraged to take electives in departments other than Statistics, particularly in mathematics, computer science, and substantive disciplines that apply statistical methods. 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.

Courses and workshops for secondary school teachers of statistics are also offered in order to promote sound statistics pedagogy throughout the curriculum.

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 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.

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 courses 112 through 199 (except courses 147, M148, 184, 186), Mathematics 131A, 131B, 151A, 151B, 170B, 171. 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.

Policies
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 large, open-ended data science problems for community- or campus-based clients. Emphasis is placed on the development and theoretical support of a statistical model or algorithm approach. Alternatively, students may un-
Students entering UCLA directly from high school take 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 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

Premajor
Students entering UCLA directly from high school or first-term transfer students who want to declare the Data Theory premajors at the time they apply for admission are automatically admitted to the premajors. Students must visit the student services office of either the Mathematics Department or Statistics Department in order to petition to enter the major. All students are identified as Data Theory premajors until they satisfy the following minimum requirements for the major.

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.

Policies
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.

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 sessions, are counted for this GPA computation.

Transfer Students
Transfer applicants to the Data Theory major are admitted to the premajors. 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 first year at UCLA.

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 Department in order to petition to enter the major.

The Major
Required: Mathematics 118, 131A, 156, Statistics 101A, 102A, 102B, 101C, 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
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 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.


Policies
Statistics 105, 188SA, 188SB, 188SC, 189, 189HC, 195, and 199 may not be applied toward the minor. Elective courses from outside the department are selected in consultation with the Statistics 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 major 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 Minor

The Statistics minor is designed to provide a solid background in statistics for students majoring in other disciplines. Students interested in the minor in Statistics 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.

Graduate Majors

Master of Applied Statistics

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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

Program Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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; computer laboratory, one hour. Preparation: three years of high school mathematics. Not open for credit to students with credit for course 11, 12, 13, or 14, or former course 10H. Introduction to statistical thinking and understanding, with emphasis on statistical reasoning and interpretation of basic experimental designs, graphical and numerical summaries of data, inference, regression as descriptive tool. P/NP or letter grading.

12. Introduction to Statistical Methods for Geophysics and Environmental Studies. (5) Lecture, four hours; discussion, one hour; laboratory, one hour. Not open for credit to students with credit for course 10, 11, or 13. Introduction to statistical thinking and understanding, with emphasis on applications used in geophysics and environmental science. Underlying logic behind statistical procedures, role of variation in statistical thinking, strengths and limitations of statistical summaries, and fundamental inferential tools. Emphasis on applications in geography and environmental science in laboratory work using professional statistical analysis packages, including spatial statistics. P/NP or letter grading.

15. Introduction to Data Science. (5) Lecture, three hours; discussion, one hour; computer laboratory, one hour. Preparation: three years of high school mathematics. Not open to students with credit for course 10, 12, 13, or former course 10H, 11, or 14. Introduction to data science, including data management, data visualization, data cleaning, statistical computing, and reproducible work. 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 the contributions and concepts that arise naturally when playing 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, Economics 11, 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 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 grading.

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 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.

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. Covers use of 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 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.

89HC. Honors Contracts. (1) Tutorial, three hours. 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 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. 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 toward credit for eligible students. Honors content noted on transcript. P/NP grading.
101B. Introduction to Design and Analysis of Experiment. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 101A. Fundamentals of collecting data, including components of experiments, randomization and blocking, completely randomized design and ANOVA, multiple comparison. Preparation: Python or multiple regression models. Power analysis and sample size. P/NP or letter grading.

101C. Introduction to Statistical Models and Data Mining. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 101A. Design for experiments for 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 for statistical inference. P/NP or letter grading.

102A. Introduction to Computational Statistics with Applications. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 20, 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: the basic ideas of statistical graphics, finding, simulation, randomization testing, and bootstrapping. Covers intermediate to advanced programming with R. P/NP or letter grading.


105. Statistics for Engineers. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 100A or Electrical Engineering 131A or Mathematics 170A. Foundation of basic concepts and techniques of statistics. Topics include sampling distributions, statistical estimation (including maximum likelihood estimation), statistical intervals, and hypothesis testing, with emphasis on application of these concepts. Discussion of methods for checking whether assumptions required for mathematical foundations are appropriate for given set of data. Concepts and principles of data analysis and statistical inference. Preparation: basic statistics, basic computer literacy. P/NP or letter grading.

112. Statistics: Window to Understanding Diversity. (5) Lecture, three hours; discussion, one hour; laboratory, one hour. Enforced requisites: one course from course 10, 12, 13, Economics 11, 41, or Psychology 100A, or score of 4 or higher on Advanced Placement Statistics Examination. Limited to juniors/seniors. Statistical methods in social sciences, including regression, multivariate techniques, logistic regression, and data-handling and storage programs to social science using professional statistical analysis software package for data analysis. Letter grading.


C116. Social Statistics. (4) Lecture, three hours. Preparation: some knowledge of basic calculus and linear algebra. Enforced requisites: courses 100A and 100B, or 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 issues and methods employed in social sciences. Concurrently scheduled with course C216. P/NP or letter grading.

130. Getting Up to Speed with SPSS, Stata, SAS, and R. (4) Lecture, three hours; discussion, one hour. Preparation: basic statistics, basic computer literacy. General introduction to software: SPSS (Statistical Package for the Social Sciences), Stata, SAS (Statistical Analysis System), and R—for data analytic and statistical issues in health sciences, engineering, economics, and government. Emphasis on applied problems solving, measurement issues in 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. Enforced requisites: course 102A. Limited to junior/senior statistics majors and minors. Use of Python and other technologies for data analysis and data science. Focus on programming and implementation 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, Structured Query Language (SQL), and git. P/NP or letter grading.

140XP. Practice of Statistical Consulting. (4) Formerly numbered 140SL) Lecture, one hour; discussion, two hours. Enforced requisites: courses 100B, 101B. Limited to seniors. Opportunity to solve real data analysis problems for real community-based or campus-based clients. Students work in small groups with faculty member and client to frame client’s question and design of solution. Students analyze data, and report results. Weekly meetings in classroom setting to study basic consulting skills, share experiences, exchange ideas, and make reports. On-site visits as arranged. Preparation: enrollment in 140XP and 141XP must be taken in consecutive terms. In Progress grading (credit to be given only on completion of course 141XP).

141XP. Lecture, Statistical Consulting. (4) Formerly numbered 141SL) Seminar, one hour; discussion, one hour; research group meeting, two hours. Enforced requisites: course 140XP. Limited to seniors. Opportunity to solve real data analysis problem for real community-based or campus-based clients. Preparation: enrollment in 140XP and 141XP must be taken in consecutive terms. Letter grading.


147. Data Technologies for Data Scientists. (2) Lecture, two hours. Enforced requisites: courses 100B or Mathematics 170S, 101A, 101C or Mathematics 156. Limited to seniors. Introduction to variety of tools and technologies used in data science. Prepares students for applied project work. Topics include use of collaborative repository hosting services allowing access control; secure cloud services platforms 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.

M146. Experience of Data Science. (4) (Same as Mathematics M146.) Lecture, four hours. Enforced requisites: courses 100C, 101A, or Mathematics 156, Mathematics 118, 131A. Students solve real data science problems for community- or campus-based clients. Students work in small groups with a faculty member and together to frame questions in data science terms, create mathematical models, analyze data, and report 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.


M154. Measurement and Its Applications. (4) (Same as Psychology M144.) Lecture, three hours. Enforced requisites: one course from 10, 12, 13, or Psychology 100A. Selected theories for quantification of psychological, educational, social, and behavioral science phenomena through the use of psychometric instruments, measurement scales, and statistical techniques. Preparation: enrollment in one of the listed courses. P/NP or letter grading.

C155. Applied Sampling. (4) Lecture, three hours; discussion, one hour. Designed for upper-division and graduate students in social or life sciences and those wishing to make use of data science and statistical 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 and estimation and simulations of experimental exercises. Concurrently scheduled with course CM248. P/NP or letter grading.

157. Probability and Statistics Data Modeling and Analysis. (4) (Same as Statistical Consulting 114.) Lecture, three hours. Enforced requisites: courses 100B or Mathematics 33A. Introduction to pattern analysis and machine intelligence designed for advanced undergraduate and graduate students. Concurrently scheduled with course C261. P/NP or letter grading.

C161. Introduction to Pattern Recognition and Machine Learning. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 100B or 100A. Exploration of standard methods in temporal and frequency analysis used in analysis of numerical time-series data. Examples provided throughout, and students implement standard methods in temporal and frequency analysis using open Internet resources. Varieties of data, study-designs, and applications arising from biomedical, search, and simulated data to prepare students for innovative multidisciplinary research. Use of Statistics Online Computational Resource (SOCR), P/NP or letter grading.

C171 Introduction to Spatial Statistics. (4) (Same as Geography M186.) Lecture, three hours; laboratory, one hour. Enforced requisites: one course from 10, 12, 13. Introduction to methods of measurement and interpretation of geographic distributions and associations. P/NP or letter grading.
C173. Applied Geostatistics. (4) Lecture, 3 hours; discussion, 1 hour. Requisite: course 100C may be taken concurrently) or 101B. Geostatistics can be applied to many problems in other disciplines such as hydrology, traffic, and air and water pollution, epidemiology, and geomatics. Geostatistics, geographic information systems, remote sensing, and GIS are used to analyze real spatial data problems and to connect geostatistics with geographic information systems (GIS). Concurrently scheduled with course C273. P/NP or letter grading.

175. Statistics for Spatial Data. (4) Lecture, 3 hours; discussion, 1 hour. Statistical theories used in analyzing spatial data. Study of three types of spatial data: geostatistical data, lattice data, and point data in analyzing spatial data. Study of three types of spatial data. Topics include Stein paradox, nonparametric Bayes, and statistical learning. Examples of applications vary according to interests of students. Concurrently scheduled with course C236. P/NP or letter grading.

182. Fundamentals of Scientific Writing. (2) Seminar, one hour. Development and perfection of student written communication skills through variety of scientific writing assignments. Objectives and techniques of scientific writing and practice with different forms of professional writing. Analysis of quality of writing, including control, clarity, grammar, and mechanics. P, NP, or letter grading.

C183. Statistical Models in Finance. (4) Lecture, 3 hours; discussion, 1 hour. Enforced requisite: course 100B. Designed for juniors/seniors. Introduction to statistical inference based on use of Bayes theorem, covering foundational statistical and economic issues. Important topics include Stein paradox, nonparametric Bayes, and statistical learning. Examples of applications vary according to interests of students. Concurrently scheduled with course C236. P/NP or letter grading.

185C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: 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.

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 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. Enforced as an alternative 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 an 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. Community or Corporate Internships in Statistics. (4, 5) Lecture, 4 hours. 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 experiences. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research in Statistics. (1 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

200A. Applied Probability. (4) Lecture; 3 hours; discussion, 1 hour. Requisite: course 100A or Mathematics 170B. Introduction to probability. Topics include random variables, distribution functions, expectations, moment generating functions, moments, Chebyshev’s inequality, the law of large numbers, central limit theorem, random walks, and Markov chains. P/NP or letter grading.

200B. Theoretical Statistics. (4) Lecture; 3 hours; discussion, 1 hour. Sufficiency, exponential families, least squares, maximum likelihood estimation, Bayesian estimation, Fisher information, Cramer/Rao inequality, Neyman-Pearson lemma, hypothesis testing, likelihood ratio test, p-value, false discovery, nonparametric tests, semiparametrics, model selection, dimension reduction, survival analysis, and medical diagnostics. P/NP or letter grading.

200C. High Dimensional Statistics. (4) Lecture; 3 hours; discussion, 1 hour. Survey of modern techniques in analyzing high-dimensional and nonparametric estimation problems. Emphasis on non-asymptotic bounds via concentration inequalities. S/U or letter grading.

201A. Research Design, Sampling, and Analysis. (4) Lecture; 3 hours; discussion, 1 hour. Enforced requisite: course 201B. Emphasis on research design and statistical thinking. Topics include Neyman allocation, ANOVA block designs, factorial designs, unequal probability sampling, regression estimation, stratified sampling, and cluster sampling. S/U or letter grading.

201B. Statistical Modeling and Learning. (4) Lecture, 3 hours; discussion, 1 hour. Requisites: courses 200A and 200B. Topics include regression, dimension reduction, tree-based methods, linear models, generalized linear models, support vector machines, and neural networks. P/NP or letter grading.

201C. Advanced Modeling and Inference. (4) Lecture, 3 hours; discussion, 1 hour. Strongly recommended requisites: courses 200B, 201B. Designed for PhD and Master’s students in fields such as econometrics, biostatistics, business, economics, and the social sciences. Emphasis on advanced topics in statistical modeling and inference, including Bayesian hierarchical models, missing data problems, mixture modeling, additive modeling, hidden Markov models, and dynamic Bayesian networks. Topics include computational methods used and developed for these models and problems, such as EM algorithm, data augmentation, Markov chain Monte Carlo programming, and belief propagation. S/U or letter grading.

202A. Statistical Programming. (4) Lecture, 3 hours; discussion, 1 hour. Topics include programming environments/languages such as UNIX, UNIX shell, Python, R, and Processing and data technologies/frameworks such as relational databases and SQL and XML, with emphasis on complex data types, including large collections of textual data, GPS traces, network logs, and various online sources. S/U or letter grading.

202B. Matrix Algebra and Optimization. (4) Lecture, 3 hours; discussion, 1 hour. Requisite: course 202A. Survey of computational methods that are especially useful for statistical analysis with implementation using freely available software packages. Topics include matrix analysis, multivariate regression, principal component analysis, multivariate analysis, and deterministic optimization methods. S/U or letter grading.

202C. Monte Carlo Methods for Optimization. (4) Lecture, 3 hours; discussion, 1 hour. Enforced requisite: course 202B. Monte Carlo methods and numerical integration. Importance and rejection sampling. Sequential importance sampling. Markov chain Monte Carlo (MCMC) sampling techniques, with emphasis on Gibbs samplers and Metropolis/Hastings. Simulated annealing. Exact sampling with coupling from past. Permutation testing and bootstrap confidence intervals. S/U or letter grading.

203. Large Sample Theory, Including Resampling. (4) Lecture, 3 hours; discussion, 1 hour. Requisite: course 200B. Asymptotic properties of tests and estimates, consistency and efficiency, likelihood ratio tests, chi-squared tests. S/U or letter grading.

205. Hierarchical Linear Models. (4) Lecture, 3 hours. Designed for students in statistics and other disciplines who want to learn computer-based data analysis using linear and nonlinear regression and multilevel models. Introduction to and demonstration of wide variety of models to instruct students in how to fit these models using freely available software packages. Topics include regression, poststratification, matching, regression discontinuity, and instrumental variables, as well as multilevel logistic regression and missing data imputation. Practical tips regarding building, fitting, and understanding models provided. S/U or letter grading.


207. Statistical Learning with Sparsity. (4) Lecture, 3 hours. Study of methods that exploit sparsity to help recover underlying signal in data. S/U or letter grading.

208. Stochastic Learning Theory. (4) Lecture, 3 hours. Advanced understanding of the design and analysis of machine learning methods, with emphasis on prediction problems. S/U or letter grading.


218. 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 concepts such as role and position. Use of graphical representations of network information. S/U or letter grading.

221. Time-Series Analysis. (4) Lecture, four hours. Recommended: some experience in statistical computing. Exploration of various tools for analysis of temporal data. Topics include temporal and frequency analysis, wavelets, and chaos. Implementation of various techniques using real data sets. S/U or letter grading.

M222. Spatial Statistics. (4) (Same as Geography M225 and Urban Planning M215) Lecture, three hours. Designated for graduate students. Survey of modern methods used in analysis of spatial data. Introduction to various techniques using real data sets from diverse fields, including neuroimaging, geology, seismology, demography, and environmental sciences. S/U or letter grading.


M231A. Pattern Recognition and Machine Learning. (4) (Formerly numbered M231.) (Same as Computer Science M279A, M279B) Lecture, three hours; discussion, one hour. Preparation: one course at the graduate level. Fundamental concepts, theories, and algorithms for pattern recognition and machine learning that are used in computer vision, image processing, speech recognition, data mining, computer vision, and computational biology. Topics include Bayesian decision theory, parametric and nonparametric learning, clustering, complexity (VC bounds, MDL, AIC), PCA/ICA/CTA, MDS, SVM, boosting, S/U or letter grading.

231B. Methods of Machine Learning. (4) (Formerly numbered 270.) Lecture, three hours; discussion, one hour. Recommended requisites: courses 208, M231A. Introduction to key tools and techniques for analysis of learning with neural networks and graphical models with latent variables. S/U or letter grading.

231C. Theories of Machine Learning. (4) (Formerly numbered 204.) Lecture, three hours. Preparation: courses 200A, 231B. Introduction to many useful nonparametric techniques such as nonparametric density estimation, nonparametric regression, and high-dimensional statistical modeling. Some semiparametric techniques and their use in data analysis. S/U or letter grading.


M232B. Statistical Computation and Inference in Vision and Cognition. (4) (Same as Computer Science M268B) Lecture, three hours. Preparation: basic statistics, linear algebra (matrix analysis), computer vision. Introduction to broad range of algorithms for statistical tools used in vision, pattern recognition, speech, bioinformatics, data mining. Topics include Markov chain Monte Carlo computational, sequential Monte Carlo methods, belief propagation, partial differential equations. S/U or letter grading.

232C. Cognitive Artificial Intelligence. (4) Lecture, three hours. Recommended requisites: courses M232A, M232B. Demonstration of how to build artificial intelligence by following principles of human intelligence revealed by cognitive science, including learning from small data, expressing causality of physical world, and inferring mental states of others for inductive social interactions. Draws from statistical modeling, cognitive science, artificial intelligence, computer vision, and robotics. S/U or letter grading.

M235. Modern Environmental Statistics. (4) (Formerly numbered Environment M235) Seminar, three hours. Limited to graduate students. Recommended requisites: calculus, linear algebra, Focus on practical understanding and application of statistical tools for environmental problems. Topics include: Application of statistical models to environmental analysis. Introduction to broad range of algorithms for statistical tools used in vision, pattern recognition, speech, bioinformatics, data mining. Topics include Markov chain Monte Carlo computational, sequential Monte Carlo methods, belief propagation, partial differential equations. S/U or letter grading.

236. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Recommended requisites: course 200A or 208B. Demonstration for graduate students of statistical inference based on use of Bayes theorem, covering foundational aspects, current applications, and computational issues. Topics include Stein paradox, nonparametric Bayes, and statistical learning. Examples of applications vary according to interests of students. Concurrently scheduled with course C180. S/U or letter grading.

236. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Recommended requisites: course 200A or 208B. Introduction to Bayesian inference is useful for modern applications of artificial intelligence used in a broad range of fields. S/U or letter grading.

238. Vision as Bayesian Inference. (4) Lecture, three hours; discussion, one hour. Recommended requisites: course 200A. Demonstration of how to build artificial vision systems from Bayesian inference using models developed for designing artificial vision systems. Applied to statistics, these ideal observer models that can be used to model human vision and serve as a benchmark. S/U or letter grading.


M242. Multivariate Analysis with Latent Variables. (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 analysis, graphical models, and causal modeling. S/U or letter grading.


M244. Statistical Analysis with Latent Variables. (4) (Same as Education M231E) Lecture, three hours. Preparation: Education 231A, 231B. Introduction to general latent variable 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 statistical and computational framework, model formulation, identification, estimation, and testing. Letter grading.


M250. Statistical Methods for Epidemiology. (4) (Same as Epidemiology M216) Lecture, three hours; discussion, one hour. Preparation: one course at the level of upper division for 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 nonresponse bias, and methods for efficient and precise estimation of population characteristics. Applications of sampling methods via lectures and hands-on laboratory exercises. Concurrently scheduled with course C180. S/U or letter grading.

M252. Statistical Methods for Epidemiology. (4) (Same as Epidemiology M211) Lecture, four hours. Preparation: two terms of statistics (such as Biostatistics 102A, 102B). Enforced requisites: Epidemiology 200B, 200C. Concepts and methods tailored for analysis of epidemiologic data, with emphasis on tabular and graphical techniques. Expanded range of topics introduced in Epidemiology 200B and 200C and introduction of new topics, including causal and counterfactual models. S/U or letter grading.

M254. Statistical Methods in Computational Biology. (4) (Same as Bioinformatics and Biomatics M271) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Recommended requisites: course 100A or 200A or Bioinformatics M208. Introduction to many useful nonparametric models, including path and simultaneous influence models, and widely applied in several branches of computational biology, such as gene expression, sequence alignment, motif discovery, comparative genomics, and biological networks. Focus on understanding of basic statistical concepts and use of statistical inference to solve biological problems. Letter grading.

M255. Causality. (4) Lecture, three hours. 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.

**C261. Introduction to Pattern Recognition and Machine Learning.** (4) Lecture, three hours. Requisites: course 100B, Mathematics 33A. Introduction to pattern analysis and machine intelligence designed for advanced undergraduate and graduate students. Concurrently scheduled with course C186. S/U or letter grading.

**C271. Robust Statistical Models of Visual Cortex.** (4) Seminar, three hours. Requisite: course 100B or Mathematics 33A. Recommended: Computer Science 180. Introduction to state-of-the-art computational models of mammalian visual cortex, with topics in low-, mid- and high-level vision. Discussion of recent evidence from anatomy, electrophysiology, imaging (e.g., fMRI), and psychophysics. Concentration on mathematical modeling and experimental design, taking 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, economics, geography, waste management, forestry, agronomy, 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 and connect geostatistics with geographic information systems (GIS). Concurrently scheduled with course C173. S/U or letter grading.


**C287. Seminar: Computing for Statistics.** (2 to 4) Seminar, three hours; fieldwork, 10 hours. To further knowledge by applying what students have learned in class to an actual service work setting under guidance of faculty mentor. Interaction with nonprofit organizations can be either on location or over the Internet. May be used for MS thesis; research paper/project required. S/U or letter grading.

**C295. Teaching Apprenticeship Practicum.** (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment, 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. Introduction to Probability Modeling.** (4) Lecture, three hours; discussion, one hour. Preparation: calculus and linear algebra. Limited to Master of Applied Statistics students. Introduction to probability theory, probability models, and stochastic processes, with emphasis on concepts, intuitions, calculations, and real applications. Letter grading.

**401. Survey of Methods in Modern Statistics.** (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Overview of fundamental concepts of data analysis and statistical inference and how these are applied in wide variety of settings. Arc of statistical investigation, including data collection, data exploration, formal inference, and model checking. Letter grading.

**402. Applied Regression.** (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Introduction to state-of-art applications of linear models for understanding systems and predicting outcomes. Topics include review of statistical inference, regression diagnostics, interpreting linear model, prediction and confidence intervals, model building, diagnostics, and bootstrapping. Letter grading.

**403. Mathematical Statistics.** (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Basic concepts of mathematical statistics and their applications. Mathematics used to prove various statistical theories, with emphasis on real-world applications. Estimation and statistical inference. Random variables and their distributions; random vectors, their means, variances, variance covariance matrix; and important limit theorems such as central limit grading.


**405. Data Management.** (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Fundamentals of database management, including reading and writing various forms of data, working with databases, data cleaning, validation, transformation, exploratory data analysis, and introduction to data visualization. Exploration of related issues of data security, ethics, and scalability. Introduction to and use of various software packages, such as Python, SQL, Stata, SAS, R. Letter 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. Offers students working knowledge of basic concepts underlying important multivariate techniques, with overview of actual applications in various fields, and with experience in using 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, which are either time series, panel or year meaningful parameters of models or finding best fitting model that can then manipulate to produce useful outputs such as predictions or counterfactual estimates. Focus on what linear models are not appropriate and may produce misleading estimates. Generalized linear model and maximum likelihood methods as essential tools all statistics students should understand. Course aims to explore regression and classification techniques that have been ubiquitous in machine learning literature in recent years, with special attention to regularization and kernel methods grading.

**413. Machine Learning.** (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Recommended preparation: linear algebra, calculus, basic computer programming knowledge. Overview of recent developments in data mining methods. To gain in-depth understanding of these methods, implementation of them in R, Python, and C or 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 collection. Past and present 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, 403. Limited to Master of Applied Statistics students. Introduction to fundamental concepts and techniques of types spatial and spatial-temporal datasets frequently arising in geostatistical problems. Geostatistical data arise commonly in nearly every science, wherever
spatial and spatial-temporal data are obtained. Examples include geology, hydrology, traffic, air and water pollution, epidemiology, economics, geography, waste management, forestry, oceanography, meteorology, and agriculture. Theory and 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 inferential methods. Letter grading.

417. Models in Finance. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Exposure to several statistical techniques used in investment theory, and hands-on experience with researching various models on real stock market data using package stockPortfolio of open source statistical software R. 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.


421A. Introductory Statistical Communication. (4) Lecture, three hours; discussion, one hour. Designed to improve verbal and written communication skills related to various ways in which statistical concepts are used in workplace. Directed toward students who are not experts in English communication or for whom English is not their language. Letter grading.

421B. Advanced Statistical Communication. (4) 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. Students learn how to lead, manage, negotiate, and participate in teams of data scientists 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 inferential methods. Letter grading.

425. Text Mining. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Covers use of text mining tools for purpose of data analysis. Covers basic text handling, natural language processing, and statistical modeling on top of text data. 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 relating to 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 with permission from program chair or instructor. S/U grading.

596. 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.

598. MS Thesis Research. (2 to 12) Tutorial, to be arranged. Designed for second-year statistics MS students. Study and research for MS thesis. May be repeated for credit. S/U grading.


Surgery

David Geffen School of Medicine
72-131 Center for Health Sciences
Box 951749
Los Angeles, CA 90095-1749

Surgery
310-206-2567

Ronald W. Busuttil, MD, PhD, Executive Chair
Richard J. Shemin, MD, Executive Vice Chair
Charles Chandler, MD, Vice Chair, Surgical Services
Timothy R. Donahue, MD, Vice Chair, Surgical Cancer Care
O. Joe Hines, MD, Vice Chair, Clinical Practice and Strategic Planning; Vice Chair, Administration

Clifford Y. Ko, MD, MSHS, Vice Chair, Clinical Research
Jerzy W. Kupiec-Weglinski, MD, PhD, Vice Chair, Basic Research
Areti Tillou, MD, Vice Chair, Surgical Education
Robert S. Bennion, MD, Vice Chair, Olive View-UCLA
Christian M. deVirgilio, MD, Vice Chair, Harbor-UCLA
Bruce L. Gewertz, MD, Vice Chair, Cedars-Sinai
Matthias G. Stelzner, MD, Vice Chair, VA Greater Los Angeles Healthcare System
Eleby Washington, MD, Vice Chair, Drew University

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.

Third-year students participate in one 12-week core clerkship in clinical surgery and are assigned to rotations at a combination of Reagan UCLA, Cedars-Sinai Medical Center, Harbor-UCLA, West Los Angeles VA, Olive View-UCLA, Kaiser Permanente, and Santa Monica-UCLA 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 faculty information is available from the department.

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. Credit/No Credit grading.

Overview
The Department of Theater offers comprehensive training for the profession, including study of theater’s long history and rich literature. Drawing on this vibrant heritage, the curriculum promotes an awareness of theater as a global practice embodying the contributions of diverse cultures and explore theater and performance as a form for reflecting the human experience. Students engage in theatrical performance in a community where creativity and critical thought combine in the exploration of 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

**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.

**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 from 150, 173A, 173B, 174B, or 174C (4 units), and 34 upper-division theater elective units. 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.

Majors wishing to pursue one of the emphases in the areas of acting, design and production, directing, musical theater, or playwriting are expected to complete a number of regularly offered elective courses.

Students who do not select and emphasize who wish to pursue an individualized plan are expected to meet with the undergraduate vice chair at the beginning of each year to plan their course of study.

**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 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.

**Required Lower-Division Courses** (6 to 10 units): Theater 10 and one course from 15, 20, 28A, 28B, 29C, 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, 134, 143, 145A, 146A, 146B, 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**

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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**

**Program Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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. Designed for Theater majors. Introduction to basic music theater dance technique. Each course may be repeated once for credit. Letter grading.

2A. Tai Chi. (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) Studio, two to four hours. Requisite: course 2A. Designed 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.

3Aikido. (1) Studio, two to four hours. Designed 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, one hour (when scheduled). Exploration of theater in production, with 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. Study 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 subdivisions, including acting, directing, design, playwriting, and critical study. Letter grading.

14A-14B-14C. Introduction to Design. (5–5–5) Lecture, three hours; studio, six hours. Exploration of visual interpretation of drama. Study of styles and techniques of design, collaborative role of designer, principles of design for scenery, lighting, costumes, and sound. Both technical and aesthetic groundwork for further study. Letter grading.

15. Introduction to Directing. (4) Lecture, two hours; studio, three 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 and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many pathways of discovery at UCLA. P/NP 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 235. Studio, three hours. Reading and translating musical notation in treble clef; defining common musical terminologies; basic rhythm reading; and phonetic 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 song form, musical theater score formats, and harmonic/contrapuntal singing. Letter grading.

24A. Actor’s Voice. (2) Studio, three to four hours. Study of specific vocal technique for actor, with emphasis on resonance, range, power, and development of physiological foundation 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) Formerly numbered 255A) Studio, three to four hours. Study of basic kinesiology in performance, including 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 character development and to expansion of movement potential. P/NP or letter grading.

27. From Vaudeville to Standup Comedy. (4) Studio, three to four hours. Exploration of many aspects of comedy, its historical traditions, actors, 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, invention, and innovative writing skills in all comic forms, to discover how comedy draws from so many art forms, including music/songs, dance, storytelling, clowning, magic, design, and tumbling/stunts, and to build overall confidence/ease in comic performance skills. P/NP or letter grading.

28A-28F. Acting, Voice, and Movement Workshops I. (2 each) Studio, three to six hours (28A-28D) and six hours (28E-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. Introduction to directing. Exclusion of second-year directing students. Focus on exploration and development of creative writing skills for one or more of various forms of entertainment media. May be repeated one time. Letter grading.

34A-34B-34C. Ballet II. (1–1–1) Studio, five hours. Development of movement techniques for musical theater. Letter grading.

35A. Group Singing Techniques. (1) Studio, three hours. Requisites: courses 23A, 23B. Introduction to singing techniques, with emphasis on bel canto training. Exploration of how singing voice works and how to achieve optimal vocal sound and musically 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 9 units. Letter grading.

72. Production Practice in Theater, Film, and Digital Media. (1 to 8) Studio, three hours. Exploration and laboratory experience in one or more of various aspects of production practice for entertainment media, including theater, film, video, and digital media. May be taken for maximum of 8 units. 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 theaters, studios, or entertainment organizations accentuating creative contributions of professional actors in various specialties. Students meet on regular basis with faculty member and provide periodic reports of experience. May be taken for maximum of 4 units. Individual contract with supervising faculty member required. 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

101A. Global Histories of Theater and Performance I. (5) Lecture, three hours; discussion, one hour. Introduction to histories of theater and performance from across world, with emphasis on Western 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. (5) Lecture, three hours. Exploration of major theater traditions of Japan from emergence of earliest theatrical activity to present, including investigation of Noh, Bunraku, and Kabuki performance traditions. Letter grading.

102C. Cross-Cultural Currents in Theater. (5) Lecture, three hours. Exploration of interculturalism in theater with focus on 20th-century alternatives to naturalism. 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 theater as 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 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.


M103D. Contemporary Chicano Theater: Beginnings of Chicano Theater Movement. (5) Same as Chicana/o and Central American Studies M103D.) Lecture, three hours. Analysis and discussion of historical and political events from 1965 to 1980, as well as theatrical traditions that led to emergence of Chicano theater. Letter grading.

M103E. Modern African American Drama: Harlem Renaissance to Black Arts Movement. (4) Same as African American Studies M103E) Lecture, three hours. Survey and examination of African American plays from 1950s until birth of modern civil rights era. Examination of sociohistorical 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.


103L. Israel and Palestine: Communities, Conflicts, Cultures, and Arts in Middle East. (4) Lecture, three hours. No background on 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 place: it is the realm of imagination, envisioned and re-envisioned throughout history. It is at once real and surreal, sturdy 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 clichés for deeper insights arts can offer into cultural conflict and community at large to emerge with surprising conclusions. Letter grading.


104D. New Playwriting, New Playwriting. (5) Seminar, three hours. Required for students in playwriting sequence. How to approach diverse range of new plays currently in circulation of theater, current look at plays written in last 15 years and how they reflect society. Reading of plays to build skills of manuscript analysis; development of working vocabulary of dramaturgical concepts; examination of different styles of acting, directing, and design that playwrights of today draw from. Letter grading.

C104E. History of Design Décor Part I: Architecture and Décor—Antiquity to Early Neoclassical. (4) Lecture, six hours: 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 scenery, costumes, and lighting for theater, film, and television. May be repeated once for credit. Concurrently scheduled with course C404E. Letter grading.

C104F. 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 interior decor as manifestation of cultural, social, economic, 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 C404F. Letter grading.

C104G. History of Design for Performance Production Part I: 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.

C104L. History of Design for Performance Production Part II: Historic Costume from Neoclassical to 21st Century. (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 with global emphasis. May be repeated once for credit. Concurrently scheduled with course C404L. Letter grading.


107. Drama of Diversity. (5) Lecture, three hours; discussion one hour (when scheduled). Examination 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, limited to 18 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 theaters that regarded themselves, in some way, as theaters within theaters from U.S. 1960s to present; although examples from other countries, specifically Poland, also considered. Letter grading.

M109. Art and Performance: Interdisciplinary Approach to Collections of Getty Center. (4) Same as Honors Collegium M120. Lecture, four hours; discussion, one hour (when scheduled). Major collection at Getty Museum, focus on five parallel historical periods in which political, social, and aesthetic philosophy of age is examined in musical and dramatic performance. Letter grading.


C112. Emerging Technologies and Their Uses in Live Performance. (4) Formerly numbered C137.) 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 approaches to artificial intelligence. Offers professional background for students interested in working with technologists, for self-study of new technologies, and, for those already more familiar with digital technologies, theoretical background for engaging with social and cultural context of technologies. Limited to 20 students. Concurrently scheduled with course C212. P/NP or letter grading.

113. 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, drawn from range of practices. Topics may include specific types of partnering, combat, martial arts, virtual reality, 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 various forms of learning. May be repeated once for credit. P/NP or letter grading.

118C. Interactive Theater. (4) Laboratory, four hours. Application of problem-solving and creative problem 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 audiences from Los Angeles community. Selected to increase social and political awareness of problems and ideas fundamental to intellectual development, exercises and games nurture 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 curricula. Collaboration with classroom teacher to core subject to be taught. Language arts, science, history, mathematics, and social sciences are possible curricular areas. Development of evaluation tools to measure effectiveness of integrating theater and performance in K-12 classrooms. Weekly meetings to discuss teaching strategies and prepare written lesson plans that incorporate California Teaching Content Standards, objectives, motivation, goal, implementation of ideas for assessment. Classroom work culminates in thoroughly documented final project evaluated by ArtsBridge 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 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.

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 be taken concurrently. Workshop that provides students with opportunity to rehearse, perform, and critique 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 the technique of makeup, hair, and/or material from physical theater repertory. Course activities, materials, and discussions based on contemporary physical theater practices. Letter grading.
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 Energy in Classical Text. (2) Studio, three to four hours. Requisites: courses 24A and 24B, or 28A and 28B. Creation and training of vocal energy through understanding ideas, thoughts, and beats. Examination of diaphrammatic connection and breath control to work on classical text and verse, including Shakespearean sonnet. Letter grading.


124E-124F. Voice and Speech III. (1–1) Studio, three to four hours. Development of voice and speech techniques for stage. Letter grading.


125B. Physical Awareness and Combat for Theater, Film, and Television. (2) Studio, four to six hours. Focus on physical ability and movement techniques in which students explore and master va- riety of vocal styles and/or acting approaches neces-sary to be competitive in field of professional musical theater. Exploration of strategies and techniques for singing legitimate/opera music, with emphasis on vocal and body strengthening exercises and solo song coaching. Letter grading.

125D. Musical Theater Vocal Styles: Rock (2) Studio, three to four hours. Designed for Theater majors. Part of five-course series of musical theater performance techniques 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.

125E. Musical Theater: Creating and Playing Character from Musical Text. (2) Studio, two to three hours. Designed for Theater majors. Exploration of voice and lyrics of musical theater piece, song cycle, or specific composer’s work from actors’ points of view. Students develop skills in research, character observation, and improvisation. Emphasis on creating and sustaining character through singing. Letter grading.

125F. Singing: Individual Instruction. (1) Studio, one hour. Requisite: course 35B. Designed to advance proper vocal technique, focusing on breath support, vowel shape, range expression, and overall mastery of vocal instrument. May be repeated four times for credit. Letter grading.

130. Fundamentals of Playwriting. (5) Formerly numbered 130A. Lecture, two hours; discussion, one hour; laboratory, three hours. Designed for departmental majors and minors. Exploration of writing for live performance. Students develop and workshop short plays. May be repeated once for credit. Letter grading.

131A-131B. Intermediate Playwriting. (5–6) Studio, three hours. Letter grading. 131A. Full-Length Play Part I. Requisite: course 130A. Introduction to process of conceiving, researching, and developing full-length plays. Students writing full-length plays may be repeated twice for credit. 131B. Full-Length Play Part II. Requisite: course 131A. Continuation of writing full-length plays begun in course 131A. May be repeated twice for credit.


133A. Script Development Workshops. (4 to 8) Lecture, three hours; studio, four to four 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 C33A. Letter grading.


134G. Dance for Musical Theater: Ballet. (1) Studio, three to four hours. Designed for Theater majors. In- troduction to the level of skill and furthering 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 repeated five times for credit. Letter grading.

135A. 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 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 gospel and music with solo and group improvisation as foundation. Letter grading.


135C. Musical Theater Vocal Styles: Legitmate/ Operetta. (2) Studio, three hours. Designed for The-ater majors. Part of five-course series of musical theater performance techniques 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 legitimate/opera music, with emphasis 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 techniques 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-acter 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 skills in research, character observation, 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 proper vocal technique, focusing on breath support, 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. May be repeated once for credit. Consecutive enrollment with same instructor not permitted. Total units for courses 136, 137A, 137B, and 137C may not exceed 12 units. 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, dialog, ideas, and various other elements essential to effective theatrical interpretation and realization. Letter grading.

C140A. Sound Mixing. (4) Studio, four hours. Focus on mixing musical. Considered for Theatrical sound work needed to complete show. Tuning space, equalization, and some advanced projects involving programming and mixing on various consoles. May be repeated twice for credit. Concurrently scheduled with course C440A. Letter grading.

C140B. Advanced Programming for Entertainment Design. (4) Studio, three hours. Study and practice in object-based programming using MAX/MSP program- ming language to control sound and video. May be repeated once for credit. Concurrently scheduled with course C440B. Letter grading.
C140C. Advanced Projects in Programming for Entertainment Design. (4) Studio, three hours. Advanced projects using object-based programming to control sound and video. May be repeated once for credit. Concurrently scheduled with course C440C. Letter grading.

C144A. Advanced Sound Design. (4) Lecture, four hours; laboratory, four hours. Study of sound and acoustics as they relate to performance environments, techniques associated with recording, mixing, processing, and reproduction of dialogue, effects, and music tracks for theater sound design. May be repeated once for credit. Concurrently scheduled with course C444A. Letter grading.

C144B. Advanced Sound Design. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of theater sound designs, with emphasis on analysis of script and score, conceptual development of design, and techniques for realizing design. May be repeated once for credit. Concurrently scheduled with course C444B. Letter grading.

C144C. Script Analysis for Sound Designers. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation of theater sound design with emphasis on analysis of script and score, conceptual development of design, and techniques to realize design. Concurrently scheduled with course C444C. Letter grading.

144D. Music Technology for Sound Design. (4) Lecture, three hours; laboratory, one hour. Music for non-musicians. Overview of music, musical genres, and their structure with goal of understanding music composition. Students use software to create musical ideas and sound design components. Letter grading.

C146A-C146B. Art and Process of Entertainment Design. (4–4) Lecture, four hours; studio, four hours. Conceptualization, design, and prototyping of interactive theatrical events. Concurrently scheduled with courses C446A-C446B. Letter grading. C146A. Exploration of original forms of media-rich interactive environment through creative presentations, and seminar participation. Students form collaborative teams to conceive and propose interactive entertainment events. C146B. Prototype development: two to five proposals to be 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 communication skills through drafting. Exploration of drafting for scenic and lighting designs. May be repeated once for credit. Letter grading.

148. Special Courses in Design and Technical Theater. (4) Lecture. 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 styles and techniques of design, collaborative role of designer, principles of design for scenery, lighting, costumes, and sound. Both technical and aesthetic groundwork for further study. Investigation of techniques for realization of designs in production. Lecture grading.

150. Theater Production and Performance. (1 to 2) Laboratory, three to six hours. Laboratory experience in various areas of production, including performance in project or production, stage management, member of crew, or as designer or assistant on production. May be repeated for maximum of 8 units. Letter grading.

C151A. Scenic Design. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Imaginación as impresión for design, text analysis, metaphor, and conceptualization. Investigation of design research, search process, and style leading to visual presentation of design. May be repeated once for credit. Concurrently scheduled with course C451A. Letter grading.


C152D. Lighting Design for Performances and Special Events. (4-4) Lecture, four hours; studio, 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.

C152E. 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.

C153A. Costume Design. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C; for transfer students: course 149. Imaginación as imputus for design, text analysis, metaphor, 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 C453A. Letter grading.

C153B. Costume Design for Theater. (4) Lecture/studio, four hours; laboratory, four hours. Requisites: courses 14A, 14B, 14C; for transfer students: course 149. Study of costume design for prosценium, thrust, and arena configurations, multiset production, and music theater. May be repeated twice for credit. Concurrently scheduled with course C453B. Letter grading.

C153C. 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 effects of differing media on design choices. May be repeated twice for credit. Concurrently scheduled with course C453C. Letter grading.

C153D. Projects in Costume Design Management. (4) Lecture, three hours. Examination of professional duties of costume designers, set costumers, and supervisors, especially in production logistics, including but not limited to costume breakdowns, creating budgets, adhering to and overseeing them, as well as set costumer training for film and television, practice of production protocol, breakdown of daily responsibilities, and assembling set costumer kits ready for production. Practice with professional resourcefulness to move from abstract to substantive problem solving, maintaining creative environment while adhering to logistical obstacles and tasks. Concurrently scheduled with course C453D. Letter grading.

C153E. 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 in mass media and film industry. Role of costume designer and contribution of costume design to cinematic storytelling. Concurrently scheduled with course C453E. Letter grading.

C153F. Practice of Costume Design for Film Productions. (4) Lecture, three hours. Introduction to costume design as tool for storytelling, exploring integration of costume design and filmmaking process and what it takes to bring characters to life. Skills needed to effectively costume films, including script breakdown, collaboration with directors and actors, and how to manage production challenges. Concurrently scheduled with course C453F. Letter grading.

C154A. Sound Design. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Introduction to sound and audio in cinematic, audio, and digital domain. Study and practice of techniques for recording, editing, and creating effects. May be repeated once for credit. Concurrently scheduled with course C454A. Letter grading.

C154B. Sound Design for Theater. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Exploration of sound design for theater and techniques for mixing, reinforcement, and signal processing. Topics include use of delay, equalization, and microphone placement for theater sound reinforcement. Study of creation of sound effects, control of MIDI data, and design techniques for musical theater. May be repeated once for credit. Concurrently scheduled with course C454B. Letter grading.

C154C. Sound for Film and Television. (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 C454C. Letter grading.

C155A. 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. Concurrently scheduled with courses C455A. Letter grading.

C155B. Graphic Representation of Design: Multimedia Rendering. (2) Studio, four hours. Study and practice of multimedia 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 courses C455B. Letter grading.

C155C. Graphic Representation of Design: Digital Rendering. (2) Studio, four hours. Study and practice in rendering costumes, lighting, and scenic elements with combination of hand and digital rendering techniques. Coverage of rendering from life, enhancing flat rendering with vector and bitmap formats to create polished sophisticated presentations for theater, film, and television productions. May be repeated twice for credit. Concurrently scheduled with courses C455C. Letter grading.

C155D. Graphic Representation of Design: Model Making. (2) Studio, four hours. Requisite: course 147A or 147B. Study of model representation of scenic designs from initial working prototypes to finished color models. Use of wide variety of materials and techniques for execution of model. Concurrently scheduled with courses C455D. Letter grading.

C155E. Graphic Representation of Design: Life Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice in drawing of human form. Concurrently scheduled with courses C455E. Letter grading.

C155F. Graphic Representation of Design: Composition/Rendering Studio. (2) Requisite: course 147A or 147B. Study of techniques for rendering theatrical costumes, with emphasis on figure, clothing, and fabrics. Concurrently scheduled with courses 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 and light. May be repeated once for credit. Concurrently scheduled with courses 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 courses C455H. Letter grading.

C156A. Introduction to Computer-Assisted Drafting. (4) Studio, four hours. Requires: course 147A. Investigation of drawing and drafting 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. Requires: course 147A. Investigation of drawing and drafting techniques, drafting floor plan sections, and elevation drawings using AutoCAD. Concurrently scheduled with course C456B. Letter grading.


C156G. Virtual Reality Rendering for Film. (2) Studio, four hours. Requires: 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 virtual game engine environment, and utilize this platform as a powerful tool for development, presentation, and staging of film and theater design. Students primarily create renderings for film, television, and film/television, but are also introduced to Zbrush, Blender, Quixel, and other ancillary resources. Concurrently scheduled with course C456G. Letter grading.


160. Fundamentals of Play Direction. (2) Lecture, two hours; laboratory, four hours. Requires: course 15 with grade of C or better. Course 121 may be taken concurrently. Basic theories of play direction and their application through preparation of scenes under rehearsal conditions, P/NP or letter grading.

163A. Directing for Stage. (4) Lecture/studio, four hours. Requires: 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.


C163D. Directing Project for Stage. (5) Discussion, three hours; laboratory, four to eight hours. Requires: courses 163A, 163B, 163C. Application ofstage 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 C263D. Letter grading.

167A. Career Preparation for Actor. (2) Lecture/ studio, three to four hours. Requires: 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, three to four hours. Requires: courses 134A through 135F. Audition preparation for singing actor, providing various techniques to prepare for and successfully execute professional musical theater auditions. Participation may be up to three courses in cases where multiple quarters are needed to prepare production. Concurrently scheduled with course C476A-C476B-C476C. Letter grading.

170. Design and Production Project. (4) Laboratory, eight hours. Requires: 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 in production. May be repeated once for credit. Letter grading.

171A. Advanced Theater Laboratory. (1 to 4) Labora- tory, to be arranged. Creative participation as actor or stage manager in public presentation of departmental productions. May be taken for maximum of 4 units. P/NP or letter grading.

171B. Advanced Theater Laboratory. (1 to 4) Labora- tory, to be arranged. Corequisite: C171A. Participation in production of elements related to public presenta- tion 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. (4) Lecture or laboratory, three to four hours. Exploration and laboratory experience in one or more various aspects of 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. Requires: 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. Requires: 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 hours. Requires: course 174A. 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. Requires: 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. Requires: courses 147A, 174A. Professional duties of stage management. Practical training, including paper techni- ques, dry techniques, cue 2 cue, preshow setup, performance reports, and quick change rehearsals. Letter grading.

175A-175C-175D. Summer Theater Workshops. (4 or 8 each) Laboratory, 12 to 24 hours. Participation in various aspects of theater production and performance. Offered in summer only. Letter grading.

175B. Summer Theater Workshop. (1 to 4) Labora- tory, three hours. Participation in various aspects of theater production and performance. Offered in summer only. Letter grading.


M178. Film and Television Acting Workshop. (2) Same as Film and Television laboratory, four to six hours. Workshop providing opportunities for students to rehearse, perform, and evaluate scenes. Three different production styles to which performers may need to adjust are (1) preproduction rehearsals 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. Requires: 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 develop- ment for actors. P/NP or 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. Concurrently scheduled with course C285A. P/NP or letter grading.

C185B. Practicum 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 C285B. P/NP or letter grading.

C185C. Practicum in Dramaturgy. (2 to 12) Laboratory, to be arranged. For credit, focused experiences, study 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 student-written full-length play. 230C. Performance and Text. Exploration of structural constraints, political implications, and historical demands of selected contemporary American plays leading to guided completion and critique of student work.


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 finalize course 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 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. (1) 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.

195. Community or Corporate Internships in Theater, Film, and Television. (2, 4, 8) Tutorial, eight, 16, or 24 hours. Limited to juniors/seniors. Internship at various theaters, studios, or entertainment organizations that contribute to the performing arts industry, and work of professionals in their various specialties. Students meet on regular basis with instructor and provide periodic reports of their experience. May be taken for maximum of 8 units. Individual contract with supervising faculty member required. Letter grading.

199. 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. Cumulating 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. (3) Seminar, four hours. Study of selected topics in world theater history, drama, production, and/or architecture organized on thematic basis. May be repeated twice for credit. S/U or 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, production, and architecture. May be repeated four times for credit. S/U or letter grading.

212. Emerging Technologies and Their Uses in Live Performance. (4) Seminar, four hours. Seminar 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 approaches to artificial intelligence. Offered every other year. P/NP 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 deconstructive approaches. 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 debates in historiography of theater and performance in relation to visual arts, 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 identifiable 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 graduate theater students. Presentation 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. Investigation of performance as a 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, literature, cultural studies, critical race and gender theory, and law. Emphasis on establishing interdisciplinary dialogue across many fields. Letter grading.

222. Character Development through Makeup and Prosthetics. (4) Laboratory, 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 hairstylists with costume designer, actors, production designer, and director to conceptualize 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.

229C. 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 production, interpretation, politics, and industry. Overview of individual contributions in collaborative effort; examination of distinctiveness and interrelations among these arts. Individual units include participation of leading members of theatrical profession. May be repeated twice for credit. Concurrently scheduled with course CM129. S/U or letter grading.

230A-230B-230C. Writing for Contemporary Theater. (4 to 6) Lecture, three hours; studio, two 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 student-written full-length play. 230C. Performance and Text. Exploration of structural constraints, political implications, and historical 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, docuscript, 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. Designed 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, 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, six hours. Advanced study and practice in scenic design for theater. Implication as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and structural development of visual designs. 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.

246A-246B-246C. 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 for design of costumes for theater, film, and television. Historic 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. Historic survey and in-depth exploration of selected periods, with study of influences of diverse cultures. Letter grading.

261. Directing Post-Realist Drama. (4) Lecture, four hours; studio, 30 hours. Designed for graduate students. Problems in direction of post-realist plays through interpretation and laboratory scene work. Letter grading.

262. Directing II. (4) Studio, six hours. Practical exploration for generating original performances and composing works for stage. Introduction to processes of key contemporary artists across globe. Letter grading.

263. 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, with discussion and critique of work in progress. May be repeated for maximum of 20 units. Letter grading.

263D. Directing Project for Stage. (5) Discussion, three hours; laboratory, four to eight hours. Requisites: courses 163A, 163B, 163C. Introduction 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 C163D. Letter grading.
264. Directing Classical and Historical Drama. (4) Lecture, four hours; studio, 30 hours. Designed for graduate students. Problems in interpretation and direction of historical or classical drama through medium of laboratory scene work. May be repeated one time 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 problems of creating vital theatrical event in context of ongoing evolution of theater as art form. Examination of contribution of significant directors and movements; relationships between theater and other forms of representation. Letter grading.

266. Theatrical Conceptualization. (4) Lecture, four hours. Examination of process of conceptualization in dramatic production; centrality of theatrical conceptualization in interpretation of dramatic text; exploration of range of possibilities inherent in different theatrical spaces and options in design components. Consideration of visual arts and music as sources of stimulus for theatrical conceptualization, with focus on collaborative aspect of theatrical production. Letter grading.

272. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three hours. Designed for graduate students. Study of structure governing economic and artistic decision-making processes in professional theaters. Examination of process of conceptualization in design and production of sets and costumes. Letter grading.

274. Materials and Design for Performance Production. (4) Lecture, one hour; studio, three to six hours. Exploration of effects and possibilities inherent in the use of various materials, techniques, and technologies. Presentation of historical and contemporary examples. Letter grading.

284A-284B. Special Studies in Theater Arts. (2 or 4 each) Lecture/discussion, two or four hours. Designed for graduate students. Seminar study of problems in theater arts organized on topic 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: apprenticeship under active guidance and supervision of regular faculty member responsible for current 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 manifestation of cultural, social, economic, 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 4104G. Letter grading.

C404I. History of Design for Performance Production Part II: Historic Costume from Neoclassical to 21st Century. (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 Milliner at tire with global emphasis. Concurrently scheduled with course 4104I. Letter grading.


402A. Advanced Acting I. (4) Studio, five to 13 hours. Advanced training in acting, challenging body's use of energy and concentration needed for performance. Deepening awareness of personal, physical idioms and acting, and body and breath connection. Letter grading.

402B. Advanced Acting I. (4) Studio, six to 18 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.

402C. Advanced Acting for Camera. (4) Studio, six to eight hours. Practice in performance techniques for film and television. Exploration of language used by actors and directors in film and television production, and subtleties that define acting for stage and camera. Letter grading.

402A. Advanced Acting: Shakespeare. (4 to 8) Studio/laboratory, six to 18 hours. Extending understanding of language used by actors and directors in film and television production, and subtleties that define acting for stage and camera. Letter grading.


424F. Advanced Vocal Range and Flexibility. (1) Studio, three hours. Dynamic use of vocal range, including tempo, volume, pitch, resonance, actions, and physical presence. Work focuses on developing vocal and physical flexibility and techniques designed to keep the actor's instrument flexible and effectively communicating character. 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 vocal engagement to support dynamic expression of demanding texts, with attention to various vocal techniques, including tempo, volume, pitch, resonance, range, etc. Letter grading.


425A. Advanced Movement I. (2 or 4) Lecture, 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) Lecture, 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.

426B. Advanced Acting: Classical and Historical Drama. (4) Studio/laboratory, six to eight hours. Concepts related to Greek choruses and historical plays. Addresses group concentration and communication, chords and group relationship of the performer's body in space, and relationship of emotion to movement, and voice. Letter grading.

426C. Advanced Acting and Craft for Actor. (4) Studio, six to 18 hours. Focus on craft, inclusive of physicality of thought, details of realism, tempo, shared rhythm and relating movement to text, and audition technique. Letter grading.

427A. Advanced Acting for Theater, Film, and Television. (8 to 12) Studio/laboratory, eight to 12 hours. Intermediate performance experience. May be repeated for maximum of 24 units. Letter grading.

427B. Advanced Acting for Virtual Environments. (4) Studio, six to 18 hours. Scene work, presentation project required. Letter grading.

429A. Advanced Voice and Text. (2) Studio, three to six hours. Development of voice for stage, including exercises for relaxation, breathing, bodily alignment, diaphragmatic breathing, chest diaphragm resonance, and warm-up. Application of vocal techniques on contemporary and classical texts, including U.S. dialects and scen-}
425F, Advanced Movement II. (2 or 4) Studio/laboratory, three to six hours. Presentation of more complete picture of stage movement and its relationship to the-ater, music, and dance. Advancement of physical training of individual actors to their maximum potent-ial. Exploration and discovery of origins of variety of acrobatic and dance disciplines, including ballet, balletroom, period dance, and circus techniques. Letter grading.

425G–425H–425I. Advanced Movement Ill. (2 or 4 each) Studio, three to six hours. Advanced physical training for actors in one or more movement, dance, or combat discipline: capoeira, martial arts, ballet, balletroom, period dance, circus techniques. Letter grading.

426A–426B–426C. Techniques. (2 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. Ex-ploration of use of rhythm to expand movement po-tential of actors and relevant use of visual arts and an-imal studies to character development and to expansion of movement potential. Letter grading.

430A–430B–430C. Advanced Studies in Playwriting. (4 to 8 each) Lecture, four hours. Limited to MFA playwriting program students. Guided completion of full-length scripts for S/U or letter grading.

431. Special Topics in Playwriting. (4) Discussion, three hours. Designed for MFA playwriting program students. Analysis and practice of varied aspects of playwright’s art. Variable content selected from topics such as comedy writing, docudrama, writing for alter-native audiences, adaptation from stage to screen, children’s theatrical techniques. May be repeated twice for credit. S/U or letter grading.


433A. Script Development Workshops. (4 to 8) Lecture, three hours; studio, four to 24 hours. De-signed for graduate students. 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 C133A. Letter grading.

433B. Script Development Workshop. (4 to 8) (For-merly numbered C433B.) Lecture, three hours; studio, four to 24 hours. Designed for graduate students. Guided process of development, with emphasis on communication, artistic growth, and professional process. May be taken for maximum of 8 units. Letter grading.

435AF–435AW–435AS. Problems in Advanced Writ-ing for Stage. (0–0–2) Lecture, two hours. Limited to MFA candidates. Review discussion and critique of playwriting projects. Each course may be repeated for maximum of 6 units. In Progress (435AF, 435AW) and S/U (435AS) grading.

440A. Sound Mixing. (4) Studio, four hours. Focus on mixing musical. Covers paperwork needed to com-plete show, Tuning space, equalization, and some ad-vanced projects involving sound mixing on various consoles. May be repeated once for credit. Concurrently scheduled with course C140A. Letter grading.

440B. Advanced Programming for Entertainment Design. (4) Studio, three hours. Study and practice in object-based programming using MAX/MSP program-ming language to control sound and video. May be re-peated once for credit. Concurrently scheduled with course C140B. Letter grading.

441A. Lighting Design. (4) Lecture/studio, four hours. Study and practice in lighting actors, emphasizing tex-tual and character analysis from lighting designer’s perspective, conceptual development with director, effect of light on dynamics of staging, use of color in light, and relationship of lighting designer to actor. May be repeated once for credit. Letter grading.

441B. Lighting Design. (4) Lecture/studio, four hours. Study of use of light and color to define space, effect of light on scenery and costumes, lighting for arena-then theaters, musicals, and concert lighting. May be repeated once for credit. Letter grading.

441C. Lighting Design. (4) Lecture/studio, four hours. Investigation of lighting design in production, musical theater, opera, touring, and repertory situations. Study of analysis of script and score for lighting designer. May be repeated once for credit. Letter grading.

441D. Projection and Media Techniques. (4) Lecture/ studio, four hours. Designed for graduate students. Advanced study and practice in scenic pro-jection and media techniques, with emphasis on anal-ysis, design, and execution of theatrical projection and photographic technique for stage. S/U or letter grading.

442A–442B–442C. Costume Design. (4–4–4) Lecture/stu-dio, four hours. Advanced study and practice in costume design for theater. Imagery as impetus for design, text analysis, and conceptualization. Investigation of design research process, pe-riod style, and character analysis leading to visual pre-sentation of design. Study of costume design for the-atrical production, single and multiple character theater. Each course may be repeated once for credit. Letter grading.

443A–443D. Advanced Scenic Design. (4 each) Lecture, four hours. Advanced study and practice of scenic design for theater, with emphasis on cultivating imagination as impetus for design, text analysis, meta-phor, 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 techniques. Each course may be re-peated twice for credit. Letter grading.

444A. Advanced Sound Design. (4) Lecture, four hours; laboratory, four hours. Study of sound and acoustics as they relate to performance environments, techniques associated with recording, mixing, pro-cersing, automation, and reproduction of dialogue, ef-fects, and music tracks for theater sound design. May be repeated once for credit. Concurrently scheduled with course C144A. Letter grading.

444B. Advanced Sound Design. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of theater sound designs, with emphasis on analysis of script and score, conceptual development of design, and multi-track recording techniques to realize design. May be repeated once for credit. Concurrently scheduled with course C144B. Letter grading.

444C. Script Analysis for Sound Designers. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation of theater sound design with emphasis on analysis of script and score, conceptual development of design, and techniques to realize design. Concurrently scheduled with course C144C. 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 scenic and costume environments and entertainment media, including effect 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–C446B. Art and Process of Entertainment Design. (4–4–4) Lecture, three hours. Conceptualization, design, and prototyping of interactive theatrical events concurrently scheduled with courses C146A– C146B. Letter grading. C446A. Exploration of original forms of media-rich entertainment experience through lectures, presentations, and seminar participation. Students form collaborative teams 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.

448A–448B–448C. Costume Design for Film, Televi-sion, and Entertainment Media. (4–4) Lecture/ studio, four hours. Study and practice in design of costume and set design for film, television, and entre-ertainment media, including effect of differing media on design choices. Courses 448A and 448B may be repeated once for credit; course 448C may be repeated twice for credit. Letter grading.

449D. Deconstructing Glamour. (4) Lecture, three hours; screenings, two hours. Exploration of integra-tion of costume design into filmmaking process and ill-ustration of how costumes can change characters from written page to life. Letter grading.

449A. Design Thesis Preparation. (2) Lecture/studio, four hours. Series of group design projects that pre-pare design students for thesis examination. In Prog-ress grading (credit to be given only on completion of courses 449B and 449C).

449B. Design Thesis Preparation. (2) Lecture/ studio, four hours. Series of group design projects that prepare design students for thesis examination. In Progress grading (credit to be given only on comple- tion of course 449C).

449C. Design Thesis Project. (4) (Formerly num-bered 449J.) Lecture/studio, four hours. Series of group design projects that serve as final exami-nation for MFA degree in entertainment design. Re-view and evaluation of projects by design faculty mem-bers from all areas of curriculum. Letter grading.

449D. Thesis for Costume Design in Theater, Film, and Television. (4) Lecture/studio. For costume design students. One major scenography design project that serves as comprehensive exam-i nation for MFA degree in entertainment design. Re-view and evaluation of projects by design faculty mem-bers from all areas of curriculum. May be re-peated once for credit. Letter grading.

451A. Scenic Design. (4) Lecture/studio, four hours. Study of design for proce-sium, thrust, and arena configurations, multiset pro-ductions, and music theater. May be repeated once for credit. Concurrently scheduled with course C151A. Letter grading.

451B. Scenic Design for Theater. (4) Lecture/ studio, four hours. Study of scenic design for prosce-sium, thrust, and arena configurations, multiset pro-ductions, and music theater. May be repeated once for credit. Concurrently scheduled with course C151B. Letter grading.

451C. Production Design for Film, Television, and Video. (4) Lecture/studio, four hours. Study of role of art director, scenic design for single-camera and multi-camera production, and set decoration. May be re-peated once for credit. Concurrently scheduled with course C151C. Letter grading.

452A. Lighting Design. (4) Lecture/studio, four hours. Study of lighting, with emphasis on imagina-tion, 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 Theater. (4) Lecture/ studio, four hours. Study of lighting design for proce-sium, thrust, and arena configurations, music theater, and concert lighting. May be repeated once for credit. Concurrently scheduled with course C152B. Letter grading.


452D. Lighting Design for Performances and Special Events. (4) Lecture/studio, four hours. Study of lighting design practices in television for single- and multi-camera production. Concurrently scheduled with course C152D. Letter grading.
C452E. Lighting Design for Dance. (4) Lecture, four hours. Requisite: course C441A, C441B, or C441C. Advanced topics in lighting design, concentrating on live dance performance in all styles. Concurrently scheduled with course C152E. Letter grading.

C453A. Costume Design. (4) Lecture/studio, four hours. Design and drafting for costume design, text analysis, metaphor, 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.

C453B. Costume Design for Theater. (4) Lecture/studio, four hours. Study of costume design for pro-scenium, thrust, and arena configurations, multiset productions, and music theater. May be repeated twice for credit. Concurrently scheduled with course C153B. Letter grading.

C453C. Costume Design for Film and Television. (4) Lecture/studio, four hours. 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 C153C. Letter grading.

C453D. Projects in Costume Design Management. (4) Lecture, three hours. Examination of professional duties of costume designers, set costumers, and supervisors, including business management of production facilities, including but not limited to costume breakrooms, creating budgets, adhering to and overseeing them, as well as set costumer training for film and television, practice of set protocol, breakdown of daily responsibilities, and assembling set costumer kits ready for production. Practice with professional resourcefulness 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 Production. (4) Lecture/studio, four hours. Preparation and presentation to costume design as tool for storytelling, exploring integration of costume design and filmmaking process and what it takes to bring characters to life. Skills needed to work with the visual storytelling for film and television including script breakdown, collaboration with directors and actors, and how to manage production challenges. Concurrently scheduled with course C153F. Letter grading.

C454A. Sound Design. (4) Lecture/studio, four hours. Introduction to sound and audio in acoustic, audio, and digital domain. Study and practice of techniques for recording, editing, and creating soundscapes. May be repeated once for credit. Concurrently scheduled with course C154A. Letter grading.

C454B. Sound Design for Theater. (4) Lecture/studio, four hours. Exploration of sound design for theater and techniques for mixing, reinforcement, and signal processing. Topics include use of delay, equalization, and microphone placement for theater sound reinforcement. Study of creation of sound effects, control of MIDI data, and design techniques for musical theater. May be repeated once for credit. Concurrently scheduled with course C154B. Letter grading.

C454C. Sound for Film and Television. (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 professional level recordings 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-perspective, form light, shade, and textures. Graduate students expected to produce drawings demonstrating higher level of proficiency and skill. Concurrently scheduled with courses C155A. Letter grading.

C455B. Graphic Representation of Design: Multimedia Rendering. (2) Studio, four hours. Study and practice of multimedia 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 courses C155B. Letter grading.

C455C. Graphic Representation of Design: Digital Rendering. (2) Studio, four hours. Study and practice in rendering costumes, lighting, and scenic elements with combination of hand and digital rendering techniques. Coverage of rendering from life, enhancing final rendering with variety of computer-assisted formats to create polished sophisticated presentations for theater, film, and television productions. May be repeated twice for credit. Concurrently scheduled with courses C155C. Letter grading.

C455D. Graphic Representation of Design: Model Making. (2) Studio, four hours. Requisite: course 147A or 147B. Study of model for representation of scenic designs, technical working prototypes to finished color models. Use of 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 courses C155D. Letter grading.

C455E. Graphic Representation of Design: Life Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice in drawing of human form. Concurrently scheduled with courses C155E. Letter grading.

C455F. Graphic Representation of Design: Costume Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study of techniques for rendering theatrical costumes, with emphasis on figure, clothing, and fabrics. Concurrently scheduled with courses C155F. Letter grading.

C455G. 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 courses C155G. Letter grading.

C455H. 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 courses C155H. Letter grading.

C456A. Introduction to Computer-Assisted Drafting. (4) Studio, four hours. Requisite: course 147A. Investigation of drawing and editing techniques, drawing floor plan sections, and elevation drawings using AutoCAD. Concurrently scheduled with course C156A. 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 3D models developed in Maya into Unreal via Unreal Engine and use this platform as powerful tool for development, presentation, and staging of film and theater set design. Students primarily use Autodesk Maya and Unreal gaming engine, but are also introduced to Blender, Quixel, and other ancillary resources. Concurrently scheduled with course C156G. Letter grading.

C457A-C457B-C457C. Costume Construction Techniques. (2-2-2) Studio, four hours. Study of theories, techniques, and applications of pattern making, fitting, and construction techniques for period costumes and undergarments to achieve authentic-appearing costume using contemporary methods. Each course may be repeated once for credit. Concurrently scheduled with courses C157A-C157B-C157C. S/U or letter grading.


457D. Advanced Historical Costume Interpretation and Construction. (4) Lecture/studio, four hours. Introduction to costume design as tool for interpretation 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.


459A-459B. Directing for Theater, Film, and Television. (4-4) Lecture, three hours. Limited to graduate theater students. Analysis and exploration, with specific scenes, of different plays and many similarities in di-rectorial 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 contemporary issues in contemporary professional practice. Review discussion and critique of directing projects. Each course may be repeated for 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 as director in conceptualization and preparation of dramatic work. Letter grading.

472. Practice Production in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three to eight hours. Exploration and laboratory experience in one or more various aspects of production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be repeated for 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 related 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 protocols 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 protocols 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 protocols for portfolio presentation and review, with projects prepared under guidance of respective design faculty adviser. Letter grading.

C476A-C476B-C476C. Production Practice in Theater with Emerging Technologies I, II, III. (4–4–4) Studio/laboratory, four to six hours. Collaborative and technical development of all aspects of the practical production incorporating emerging and/or advanced technologies, culminating in a public presentation of student work. 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. (2–2–3) 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 grading.

498. Professional Internship in Theater, Film, and Television. (4, 8, or 12) Tutorial, to be arranged. Full- or part-time at study or complete professional project. Designed for advanced MFA students. Internship at various 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.


Theater, Film, and Television Schoolwide Programs

School of Theater, Film, and Television

103 East Melnitz Building

Box 951622

Los Angeles, CA 90095-1622

Student Services Office

310-206-8441

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. The student, in consultation with the faculty advisor, 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.

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

College of Letters and Science

A316 Murphy Hall

Box 951430

Los Angeles, CA 90095-1430

University Studies

310-206-1697

Muriel C. McClendon, PhD, Chair

Faculty Committee

Frank A. Laski, PhD (Molecular, Cell, and Developmental Biology)
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)

Overview

Available to all undergraduate students, the University Studies curriculum seeks to promote academic success and meaningful engagement. Courses are tailored to specific undergraduate populations and are designed to introduce students to the research university and academic culture of UCLA. Beyond addressing themes of academic success, the courses also introduce students to the unique opportunities and experiences available at a large research university. For more information, contact Marian Gabra.
University Studies

Lower-Division Courses

1. ACE UCLA Critical Strategies to Achieve Undergraduate Excellence for First-Year Students (Seminar, two hours. Requisite: course 10A, 10B, 10C, 10E, or former course 10. Designed for first-year students. Engages students collaboratively with 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).

2. ACE UCLA Critical Strategies to Achieve Undergraduate Excellence for First-Year Students (Seminar, two hours. Requisite: course 10A, 10B, 10C, 10E, or former course 10. Designed for first-year students. Engages students collaboratively with 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).

10B. ACE UCLA Critical Strategies to Achieve Undergraduate Excellence for Second-Year Students (Seminar, two hours. Requisite: course 10A, 10B, 10C, 10D, 10E, or former course 10. Designed for second-year students. Imparts students with critical strategies to achieve undergraduate excellence at top-tier research institution. Study of research university’s mission, strategies, 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 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.

10C. ACE UCLA Critical Strategies to Achieve Undergraduate Excellence for Humanities Students (Seminar, two hours. Requisite: course 10A, 10B, 10C, 10E, or former course 10. Designed for humanities majors in the life sciences. Engages students collaboratively with 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.)

10D. ACE UCLA Critical Strategies to Achieve Undergraduate Excellence for Business Students (Seminar, two hours. Requisite: course 10A, 10B, 10C, 10D, 10E, or former course 10. Designed for business majors. Engages students collaboratively with 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.)

10E. ACE UCLA Critical Strategies to Achieve Undergraduate Excellence for First-Generation Students (Seminar, two hours. Requisite: course 10A, 10B, 10C, 10D, 10E, or former course 10. Designed for first-generation college students. Engages students collaboratively with 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.)

30. How to Succeed at UCLA: Retention (Seminar, two hours. Limited to students in Bruin Readmissions Program. Designed to provide students with an understanding of how they and others arrive at their dismissal status and steps they can take to lead to academic success in the 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, two hours. Open to students who are working toward readmission. Apprenticeship: apprentice personal 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. SU grading.)

Faculty Roster

Professors

- Eric R. Avila, PhD
- Evelyn A. Blumenberg, PhD
- Dana Cuff, PhD
- Ananya Roy, PhD
- Vinit Mukhiya, PhD
- Ananyaroy, PhD
- Verónica Terríquez, PhD
- Christopher Tilly, PhD
- Karen N. Urmemoto, PhD
- Abel Valenzuela, Jr., PhD

Professors Emeriti

- Randall D. Crane, PhD
- J. Eugene Grisby III, PhD
- Allan D. Heskin, PhD, LLB
- Shirley Hune, PhD
- James E. Lubben, DSW
- Donald C. Shoup, PhD

Address: 3357 Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656
Lois M. Takahashi, PhD

**Associate Professors**
Amada Armenta, PhD
Veronica Herrera, PhD
Michael C. Lens, PhD
Michael K. Manville, PhD
Adam Millard-Ball, PhD
Paavo Monkkonen, PhD
Deepak Rajagopal, PhD
Kirsten Schwarz, PhD

**Assistant Professors**
Kian Goh, PhD
Liz C. Koslov, PhD
José Loya, PhD
V. Kelly Turner, PhD
Marques A. Vestal, PhD

**Lecturers**
Ted M. Bardacke, MS
Carol E. Goldstein, BA
Joan C. Ling, MA
Walker R. Wells, MCRP

**Adjunct Assistant Professor**
Gregory S. Pierce, 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 geography, political science, or sociology is recommended. For more information, contact the undergraduate advising office.

**The Minor**
Required Courses (28 units):
1. Urban Planning M120 (or Public Affairs M109) or 121 with a grade of C or better;
2. (b) five elective courses selected from Public Affairs 10, 110, 120, 140, 142, 148, 152, 153, 159, 160, 161, Urban Planning 120 (unless taken under item 1), 121 (unless taken under item 1), CM151, M161, M167, M168 (electives may be added as additional undergraduate courses are offered; any urban planning course from 100-199 is permitted);
3. (c) capstone project that may be satisfied by one of the following: (a) Urban Planning 185SL—service learning project, (b) Urban Planning 195 or Public Affairs 195—in ternship in Urban Planning, or (c) Urban Planning 199 or Public Affairs 199 with a faculty mentor affiliated with this minor—individual re search project.

**Policies**
By petition, courses outside the Luskin School of Public Affairs may be applied as an elective for the minor. No more than two courses from outside the Luskin School of Public Affairs 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.

**Graduate Majors**

**Master of Urban and Regional Planning**

**Program Requirements**
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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/Law 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—Institut d’Etudes de Paris**
In this dual degree program, students receive a Master in Governing the Large Metropolis from the Urban School of Sciences Po in Paris and a Master of Urban and Regional Planning from the Urban Planning Department at UCLA.

**Program Requirements**
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Urban Planning PhD**

**Program Requirements**
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Urban Planning**

**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 stu-
dents. Honors content noted on transcript. P/NP or letter
grading.

99. Student Research Program. (1 to 2) Tutorial (su-
ervised research or other scholarly work), three hours
per week per unit. Entry-level research for lower-divi-
sion students. Permission of faculty member and 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

M110. Inequality and Democracy: Analysis and
Praxis of Public Problems. (4) (Same as Social Wel-
fare 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, from role of gov-
ernment to social movements, that seek to intervene
in such problems. Study of problems, programs, poli-
cies, and politics in globally interconnected, transna-
tional world, with focus on analytical divide between
global north and global south. Letter grading.

M120. Introduction to Cities and Planning. (4) (For-
merly numbered 120) (Same as Public Affairs M109.)
Lecture, three hours; discussion, one hour. Survey of
urban systems in U.S., urban social theory, current growth
trends, systems of cities, urban economy and economic
structuring, traditional and alternative location theories, urban transportation, and
residential location and segregation. P/NP or letter
grading.

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, guidance documents for city
planning, implications of uncertain futures for
governance, economic development and growth man-
agement, 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
designed to develop awareness of Asian
American communities. Geographic information sys-
tems 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
planning/policy subject (e.g., economic development,
environmental planning, housing and community de-
velopment), programs, projects, implementation of
planning, role of government in U.S., urban social
theory, current growth trends, systems of cities, urban
economy and economic restructuring, traditional and
alternative location theories, urban transportation, and
residential location and segregation. P/NP or letter
grading.

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, guidance documents for city
planning, implications of uncertain futures for
governance, economic development and growth man-
agement, edge cities, spatial mismatch hypothesis,
urban poverty, racial/ethnic inequality, gender and
urban structure, sustainability, and future of cities.
P/NP or letter grading.

129. Special Topics in Urban Policy and Research.
(4) Lecture, three hours. Examination of particular
planning/policy subject (e.g., economic development,
environmental planning, housing and community de-
velopment), programs, projects, implementation of
planning, role of government in U.S., urban social
theory, current growth trends, systems of cities, urban
economy and economic restructuring, traditional and
alternative location theories, urban transportation, and
residential location and segregation. P/NP or letter
grading.

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, guidance documents for city
planning, implications of uncertain futures for
governance, economic development and growth man-
agement, edge cities, spatial mismatch hypothesis,
urban poverty, racial/ethnic inequality, gender and
urban structure, sustainability, and future of cities.
P/NP or letter grading.

M130. History of Modern Metropolis. (4) Lecture, three hours.
Introduction to microeconomics course. Most U.S. pop-
ulation lives in urban areas, and U.S. cities are
together among the most important economic
forces on the planet. Nation, state, and local govern-
ments are engaged in managing, planning, policy-
making, and governance in urban context. Ultimate ef-
cicacy of those public activities can be enhanced by
understanding of economic forces acting on urban areas.
Basic concepts related to location choice, ag-
glomeration effects, economies of scale, and special-
ization in cities and transportation. P/NP or letter
grading.

C133. Political Economy of Urbanization. (4) Lecture,
three hours. Introduction to new approaches to
understanding and analyzing poverty and inequality
and examination of forms of action, from role of gov-
ernment to social movements, that seek to intervene
in such problems. Study of problems, programs, poli-
cies, and politics in globally interconnected, transna-
tional world, with focus on analytical divide between
global north and global south. 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 region. Requisite: Economics 129. Reques-
te: Economics 129. Preparation: one in
recommended. May be re-

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 (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 differ-
ences between Mexican and Central American immi-
grants. Social conditions and forces that help us un-
derstand lives of poor people in comparative context while looking at differences between two major Latin/o-centric countries. Examination of
integration of new forms of urban poverty in contemporary
American society. Letter grading.

141. Planning with Minority Communities. (4) Lecture,
three hours. Overview of planning history, theory, and
corporate planning in low-income minority
communities, communities of color, and undererved
neighborhoods, particularly in Los Angeles area. Field
planning offers distinct perspectives and opportuni-
ties for planners to become involved. Topics range from
discussion of intersection between race and income, critical race theory, community
development, residential segregation, spatial
mismatch, and environmental justice to social justice. P/NP or letter
grading.

M150. Transportation Geography. (4) (Same as Geo-
graphy M153.) Lecture, three hours. Designed for ju-

M151. Transportation and Land Use: Parking. (4) (Same
as Public Affairs M153.) Lecture, three hours. Requisite: Economics 1 or 111 or Public Affairs 40. Parking is misunderstood link between transportation and land use.
Transporta-
tion engineers believe that free parking simply is there at end of most trips, while urban
planners treat parking as transportation issue that engi-

M160. Environmental Politics and Governance. (4)
(Same as Environment M164.) Lecture, three hours.
Environmental planning more than simply finding
problems and fixing them. Each policy must be nego-
tiated and implemented within multiple, complex sys-
tems of governance. Institutions and politics matter
dramatically. Two hours. Examination of environmental
planning that works in practice and how it might be improved. Letter
grading.

M161. Urban Sustainability. (4) (Same as Public Af-
fairen M161.) Lecture, three hours. In 21st century,
ma-

CM166. Global Environment and Development:
Problems and Issues. (4) (Same as Geography M127.) Lecture, three hours; discussion, one hour. De-
grained for juniors/seniors. Questions of population, re-
sources, and environment. Third World development. Analysis of global economic restructuring and its
conections 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 M161.) Lecture, three hours. Examination of in-
tersections between race and environment and envi-
ronment in U.S., with focus on issues related to social
justice. Because environmental inequality is highly connected to the ways that race, class, and
population approach taken, using alternative ways of understanding, interpreting, and taking action. P/NP or letter grading.

M168. Politics of Water. (4) (Same as Public Affairs M168.) Lecture, three hours. Commonly
access to safe and sustainable water provision is major challenging for governments. Examination of political, economic, and social dimensions of water provision in Asia, Africa, Latin America, and U.S. Key issues in-
clude water and state building, market reforms and
localization, social mobilization, and citizen demand
making strategies, role of crisis in citizen claims
making. Letter grading.

M171. Planning Issues in Latina/Latino Communities:
Preserving and Strengthening Community As-
sets in Mexican and Salvadoran Los Angeles. (4)
(Same as Chicana/o and Central American Studies M122 and Labor Studies M122.) Lecture, four hours.
How community and economic development interact, role of assets in community development, and unique synergies and pitfalls that enable or disable communi-
des efforts to develop a sustainable and equitable community. How to

CM172. Labor and Economic Development. (4) (Same
as Public Affairs M172.) Lecture, three hours; discussion, one hour. Three-hour discussion. Urban Economic lamps and indirectly influence and shape economic development.
834 / Urban Planning

Wide range of roles, such as actors, pols, could play in promoting and supporting economic development for all. Concurrently scheduled with course C271B. Letter grading.

M175. Women and Cities. (4) (Same as Gender Studies M175.) Lecture, three hours. Limited to junior/senior minors. Exploration of relationship 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.

C184. Looking at Los Angeles. (4) Lecture, three hours. Introduction to geographical, sociological, and historical studies of Los Angeles, with emphasis on understanding social, economic, and political issues in development of Los Angeles. Concurrently scheduled with course C284. Letter grading.

185XP. Community-Based Research in Planning. (4) (Formerly numbered 185SL.) Seminar, one hour; fieldwork, three hours. Preparation: at least four Urban and Regional Studies minor courses, of which at least one should be related to subject area of service learning setting. Limited to junior/senior minor students. Designed to serve as complement to service learning requirement and may be used to fulfill capstone requirement for minor: Students are matched to public, private, or nonprofit agency through Center for Community Learning and must complete minimum of 30 hours of work. Duties and responsibilities to be set by students, faculty, and agency, with expectations to be determined in consultation with instructor. 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. Individually 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. Letter grading.


188SC. 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. Limited to graduate students. 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 departmental honors programs. Designed as adjunct to upper-division undergraduate lecture course. Individual study; individual study 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 Internships in Urban Planning. (4) Tutorial, 12 hours. Limited to junior/senior Urban and Regional Studies minors. Internship in supervised setting. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty required. May be repeated for credit. Individual contract 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 a faculty member. Individual contract 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 nature of speculative inquiry in architectural context. Letter grading.

202A-202B. 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, sustainability, and environmentally sensitive land protection. Concurrently scheduled with Law 296E. 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 M262.) Seminar, three hours; two field trips. Consideration of such topics as Law M262 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 antispeculation and rent control legislation. Catalytic role of economic and community development in expansion of housing supply also considered. Letter grading.

M203A-203B. Seminar: Housing Segregation, Housing Discrimination, and Evolution of Public Policy. (1 to 6 each) (Same as Law M262S.) 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 antispeculation and rent control legislation. Catalytic role of economic and community development in expansion of housing supply also considered. In Progress (M203A) and letter (203B) grading.

M204. Research Design and Methods for Social Policy. (4) (Same as Public Policy M218.) Lecture, three hours; discussion, two hours. Limited to graduate students. To become more sophisticated consumers and producers of qualitative and quantitative policy research. In first half of course, basic principles of research design; in second half, various data collection methods, including ethnography, interviewing, and survey design. Letter grading.

205A-205B. MURP Comprehensive Examination: Applied Planning Project, I. (4-4) Required of all second-year students completing applied planning research project MURP comprehensive examination capstone option. Letter grading. 205A. Seminar, three hours. Guides students through identifying topics, selecting clients, developing scope of work and memorandum of understanding with clients, completing research design and literature review portions of applied planning 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.

206A. Introduction to Geographic Information Systems and Spatial Data Science. (4) (Formerly numbered M206A.) Laboratory, three hours. Designed to introduce students with little or no background in computer science to basic concepts of geographic information systems (GIS) and spatial data science with an emphasis on public policy, urban planning, and related practice, and develop skill base for community practice that provides each student with tools necessary to organize and plan effectively for political, economic, and social justice in our communities. Students learn how to use geographic information systems (GIS) to inform policy, advocacy, and policy work. Letter grading.

207. Advanced Geographical Information Systems and Spatial Data Analysis. (4) (Formerly numbered M206B) Laboratory, three hours. Practice-oriented study. Survey and overview of spatial analysis techniques and additional training in 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.


208A. Colloquium in Planning Research. (4) Lecture, one hour; discussion, two hours. Required of first-year PhD students. Introduction to design and execution of research that may result in the award of planning scholarship and approaches to research on contemporary planning topics. Preparation and oral presentation of a research paper. Letter grading.

208B. Introduction to Research Design. (4) Seminar, three hours. Required in first or second year of PhD program. Identification of planning problems, formulation of research questions, review of literature and identification of gaps, development of researchable hypotheses, understanding of strengths and weaknesses of qualitative and quantitative methodological questions, understanding of threats to validity, review of other research designs, and the presentation of alternative approaches to scholarship. Letter grading.

208C. Advanced Research Design. (4) 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. Students complete and orally defend their dissertation/thesis proposal. May be repeated for credit. S/U or letter grading.

209. 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.

M201A. Special Topics in Public Affairs. (4) (Same as Public Policy M291C and Social Welfare M203X.) 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 Perspectives on States, Markets, and Civil Society. (4) (Same as Public Policy M247B and Social Welfare M290X.) Lecture, two and one-half hours. Governance and management of 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 re-
spoiability of these institutional complexes of modern societies (state, market, and civil society), in interests that guide them, and legitimacy and resources they command. Actors often reach across systemic, jurisdictional, and national boundaries; their relationships change over time, and are not limited by conflict, and governance outcomes can vary significantly. These dynamics involve fundamental challenges and, consequently, require significant governance readiness. Let us consider the following case studies and concepts.

218B. Advanced Visual Communication. (4) Lecture, 90 minutes; computer laboratory. Development of advanced graphic design and oral communication skills, and strengthening abilities through lectures, computer laboratories, and critiques. Students apply visual communication skills through lens of professional planning practice, assuming role of consultant to prepare presentations and plans for client. Follows typical urban planning project from start to finish, and exposes students to professional consulting practice through quick, fast-paced project. Letter grading.

219. Special Topics in Built Environment. (4) Lecture, three hours. Topics in built environment selected by faculty members. May be repeated for credit. S/U or letter grading.

220A. Quantitative Analysis in Urban Planning I. (4) Lecture, three hours; laboratory, 90 minutes. Preparation: passing score on basic mathematics proficiency examination given first day of class. Introduction to mathematical and statistical concepts and methods with applications in urban planning. Review of basic mathematical concepts fundamental to planning methods; linear and nonlinear functions focusing on growth and development of urban areas; descriptive measure and display; descriptive statistics and probability. Introduction to use of computer as tool in analysis of planning-related data. Letter grading.

220B. Quantitative Analysis in Urban Planning II. (4) Lecture, three hours; laboratory, 90 minutes. Requires: course 220A or equivalent as demonstrated by passing score on mathematics proficiency examination given first day of course 220A. Introduction to concepts of statistical inference and modeling, with emphasis on urban planning applications. Topics include sampling, hypothesis testing, analysis of variance, correlation, and simple and multiple regression. Use of computer in statistical analysis and modeling. Letter grading.

222A. Introduction to Planning History and Theory. (4) Lecture, three hours; discussion, 90 minutes. Required of first-year MURP students who have not completed comparable graduate course in planning history and theory. Exploration of planning thought and practice over time, leading authors and approaches of urban political economy, with major emphasis on American urban problems and restructuring of modern metropolis. Topics include historical geography of urbanization, development and transformation of urban spatial structure, suburbanization and metropolitan political fragmentation, urban fiscal crises, and role of urban social movements. Concurrency scheduled with course C133. S/U or letter grading.

222B. Advanced Planning Theory: Production of Space. (4) Lecture, three hours. Required of first-year PhD students. Major ideas and theories of planning that have influenced its development from early-19th century to present. Letter grading.

222C. Advanced Planning Theory: Social Life and Difference. (4) Lecture, three hours. Required of 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 foundation of critical race theory (CRT), and other theoretical works focusing on racial and racialization, applying CRT to public policy, social work, and urban planning. Review of causes and symptoms of structural racism and social/racial hierarchies as they influence, and are influenced by, these three fields. Students are expected to be prepared and ready to engage in dialog by completing readings, developing questions, reflecting on material, and keeping up with current events related to course topics. 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.

230. 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. Emphasis on relations 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.

231. Global Public Affairs: Governing in Interconnected World. (4) (Same as Public Policy M228B and Social Welfare M215.) Lecture, three hours; outside work, five to nine hours. Outside work includes research and presentation on interplay between these major institutional complexes of modern, globalizing societies and organizations that operate within them: state, market, and civil society. Study materials on social and economic issues of global concern offer sense of where these institutions and organizations have come from, and helps chart their present trajectories. From perspective of governance, assessment of roles of these institutions and organizations and approaches to address today’s challenges. S/U or letter grading.

232. Disaster Management and Response. (4) Lecture, three hours. Through readings and presentations, examine role 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 addition to natural processes. Students will be prepared to focus on distinct disaster contexts and themes as set out in reading and weekly sessions. Letter grading.

233. Political Economy of Urbanization. (4) Lecture, three hours. Introduction to new approaches to urban studies, basic concepts and analytical approaches of urban political economy, with major emphasis on American urban problems and restructuring of modern metropolis. Topics include historical geography of urbanization, development and transformation of urban spatial structure, suburbanization and metropolitan political fragmentation, urban fiscal crises, and role of urban social movements. Concurrency scheduled with course C133. S/U or letter grading.

234A. Development Theory. (4) (Same as Geography M295A.) 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 developing countries. Emphasis on linkages between policy and rural and urban impacts. Gives students an important background for M234B, M234C, and many other planning courses addressing Third World issues. Letter grading.

234B. Ecological Issues in Planning. (4) (Same as Geography M295B.) Lecture, three hours. Reconsidered preparation course 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 abstract theory and concept models, and the model of a untempered nature with people-less sets aside for spiritual and scientific contemplation of nature; this approach used in environmental policy and as key idea in conservation and fragment biology. At opposite end is environmental planning devoted to its...
M324C. Resource-Based Development. (4) Same as Geography M229C. Lecture, three hours. Recommended preparation: course M324A. Some major issues associated with use 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.

235A. Urbanization in Developing World. (4) Lecture, three hours. Course 235A is not requisite to 235B. Qualitative and quantitative analysis of urban and rural societies in developing countries. Case studies from Latin America, Africa, and Asia. Lectures, student presentations, and policy debates. Letter grading.

235B. Civil Society, Nongovernmental Organizations, and Social Movements in Developing World. (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.

M236A. Theories of Regional Economic Development I. (4) Same as Geography M229A and Public Policy M219. Lecture, three hours; discussion, one hour. Introduction to theories of location of economic activity, trade, and other forms of contact between regions, processes of regional growth and decline, and effects on different levels of economic development, relations between more and less developed regions. Letter grading.

M236B. Globalization and Regional Development. (4) Same as Geography M230B. Lecture, three hours. Requisite: course M236A. Application of theories of regional economic development, location, and trade learned in course M236A to contemporary processes known as globalization. Examination of impacts and effects of globalization on development, employment, and social structure, along with implications for policy. Letter grading.


237A. Sectoral Analysis. (4) Lecture, three hours; laboratory, one hour. Introduction to methods and procedures of sectoral investigation as applied to regions, industries, communities, and their labor forces. Current theories and conceptions of industrial structure and industrial change. Investigation of characteristics and trends of industry subsectors in Los Angeles resulting in industry profile that can serve as aid to planning and shaping economic development. Letter grading.

237B. Urban and Regional Economic Development Applications. (4) Lecture, three hours. Survey and analysis of economic development strategies in U.S. Because economic development strategies seek to modify or shape existing conditions, focus on how policies attempt to harness dynamics associated with new forms of industrial location, intensified global competition, and interrelationships among capital, labor, and state. Letter grading.

C237C. Southern California Regional Economy. (4) Lecture, three hours. Introduction to regional economy, with emphasis on Los Angeles. Key economic sectors, 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. Concurrently scheduled with course CM137. Letter grading.


239. Special Topics in Regional and International Development. (4) Seminar, three hours. Topics in urban and regional development selected by faculty members. May be repeated for credit. S/U or letter grading.

240. Local Government. (2 to 6) Same as Law M255. Lecture, three hours. Analysis of structure and function of local, regional, and state government in historical and institutional context: organization, finances, intergovernmental relations, role of judiciary, public services, lawmaking, citizen participation through initiatives and referenda, and government tort liability. Letter grading.

241. Policing through Bureaucracy: Encounters with City and State. (4) Lecture, three hours. Every day, people encounter state power through their contact with bureaucracies. Bureaucracies administer and regulate many aspects of our lives, including education, housing, social benefits, and mobility. Examination of role of bureaucrats in emergence of, persistence of, and change in rules, norms, and values. Exploration of dilemmas that bureaucrats face as they do their jobs, and experiences of people who interact with bureaucrats either voluntarily or involuntarily. Consideration of the role of bureaucracies as engines of social change and social control, and how people interact with bureaucracies. Bureaucracies convey messages about race, citizenship, and belonging. Letter grading.

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 concentrated poverty, residential segregation, immigrant neighborhoods, spatial disparities in access to opportunities, housing mobility, neighborhood health and safety, urban infrastructure, and political cohesion and participation. 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 change are intertwined and coproduced. Inquiry into how we can better understand and intervene in this critical relationship, in global context of technological advance, extensive urbanization, ecological crises, and increasingly isolationist and splintered societies. Examination of big problems, and big ideas and big plans that may be needed in order to achieve 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 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, estimation of tax bases and effects of taxes on land-use decisions, benefit assessments to finance neighborhood public investment, private and intergovernmental contracting as method of supplying urban public services, tax increment finance for urban redevelopment, and municipal and state S/U or letter grading.


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 determine appropriate mechanisms of planning for multiple publics. Analysis of implementation problems 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.

248. Special Topics in Transportation Policy and Planning. (4) Lecture, three hours. Topics in transportation policy and planning selected by faculty members. May be repeated for credit. S/U or letter grading.

249. Transportation, Land Use, and Urban Form. (4) Same as Public Policy M220. Lecture, three hours. Examination of urban and regional development selected by faculty members. May be repeated for credit. S/U or letter grading.

250. Transportation, Land Use and Urban Form: Business Cases. (4) Same as Public Policy M220. Lecture, three hours. Examination of urban and regional development selected by faculty members. May be repeated for credit. S/U or letter grading.

251. Transportation and Land Use: Parking. (4) Same as Public Policy M220. Lecture, three hours. Requisites: courses 207 and 220B, or Public Policy 201 and 203. 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.

252. Transportation and Land Use: Transportation and Urban Design Studio. (4) Lecture, three hours. Students of different backgrounds and interests collaborate and independently develop proposals for actual transportation planning and urban design projects. Course simulates real-world professional planning project of type that students might be assigned if working for consulting firms or public agencies. Students acquire ability to collect and synthesize evidence typically marshaled by transportation planning and urban design professionals, urban and social analysis capabilities, technical planning skills, and data analysis and design presentation and re-presentation abilities. Letter grading.

253. Travel Behavior Analysis. (4) Same as Public Policy M221. Lecture, three hours. Requisites: courses 207 and 220B, or Public Policy 201 and 203. 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.

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, public health, equity, climate change, and community sustainability issues, many government agencies and private developers are planning to improve pedestrian and bicycle transportation. Exploration of field’s relationship to land use and transportation planning, public health, and environment. Detailed knowledge related to vehicle and pedestrian traffic volumes, pedestrian and bicycle facilities and their appropriate contexts. Examination of bicycle and pedestrian planning in context of overall street design. Essential components of bicycle and pedestrian planning, including policies, funding, and advocacy. In-class exercises and out-of-class planning projects. Letter grading.

255. Shared Mobility Policy and Planning. (4) Same as Public Policy M221. Lecture, three hours. Introduction to planning, analysis, and management of shared mobility systems, 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, including performance evaluation and route planning; taxis and ADA paratransit, ride-hailing, car-, bike-, and walk-sharing; and 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. Introduction to transportation finance and economics; concepts of efficiency and equity in transportation finance; historical evolution of highway and transit systems; congestion analysis in highway finance; private participation in road finance, toll roads, and costs and cost allocation, truck charges, congestion pricing; current issues in transit finance; transit fare and service pricing; and privatization and public transit services. Letter grading.

257. Transportation and Economic Outcomes. (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), and economic outcomes. Role of transportation in improving economic outcomes for low-income and minority households. Letter grading. M258. Transportation and Environmental Issues. (4) (Same as Public Policy M223.) Lecture, three hours. Regulatory structure linking transportation, air quality, and energy issues, chemistry of air pollution, overview of transportation-related approaches to air quality enhancement; new car tailpipe standards; vehicle inspection and maintenance issues; transportation demand management and transportation control measures; alternative fuels and electric vehicles; corporate average fuel economy and global warming issues; growth of automobile worldwide fleet; automobile in sustainability debate. Letter grading.

259. Environmental Politics and Governance. (4) Lecture, three hours. Introduction to Environmental planning is more than simply finding problems and fixing them. Each policy must be negotiated and implemented within multiple, complex systems of governance. Institutions and politics matter deeply. Overview of how environmental governance works in practice and how it might be improved. Letter grading.


261. Land-Use Planning: Processes, Critiques, and Innovations. (4) Lecture, three hours. Understanding of techniques, processes, strategies, and dilemmas of land-use planning. Despite strong criticisms and demonstrated shortcomings, land-use control remains integral to practice. How does land control work? How has it evolved? What are problems with traditional land-use control mechanisms? How will new innovations in land-use planning address criticalities? What are roles of land-use planning in good society? SU or letter grading.

262. Urban Environmental Problems: Water Resources. (4) Lecture, three hours. Water access affects quality of life and livelihoods both in California and across the United States. Overview of water use and management and the origins of water-related conflicts. Water resource governance issues related to urban transportation, with focus on complex systems of distribution, and systems of consumption to address most widespread human impacts on planetary biodiversity, landscapes, climates, and social systems. Letter grading.


264. Environmental and Resource Economics. (4) (Same as Public Policy CM256.) Lecture, three hours. Requisites: courses 207 and 220B, or Public Policy 204 and 208. Survey of ways economic is used to define, analyze, and resolve problems of environmental management. Overview of analytical questions addressed by environmental economists that bear on public policies. Letter grading.

264B. Applied Environmental Economics. (4) Lecture, three hours. Requisites: courses 207 and 220B, or Public Policy 204 and 208. Survey of ways economic is used to define, analyze, and resolve problems of environmental management. Examination of economic and policy analytic tools needed to evaluate factors that drive market adoption from electric vehicles to middle market rooftops. Recycling, electric vehicles, and energy efficiency as focal examples, with emphasis on role of policy and planning incentives intended to spur adoption. Letter grading.

265A. Environmental Law. (264A: 3 or 4/264B: 1 or 4) Lecture, three hours. Course 264A is enforced requisite to 264B. Examination of field of environmental law through analysis of various legal issues and public policy: legal consequences of public decision-making 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 field. Concurrently scheduled with Law 220. S/U or letter grading.

265B. Environmental Law II. (264B: 3 or 4) Lecture, three hours. Focus on environmental law through analysis of various legal issues and public policy: legal consequences of public decision-making 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 field. Concurrently scheduled with Law 220. In Progress (264A) and SU or letter grading.

265. Environmentalism: Climate Dimensions and Politics, Past, Present, Future. (4) (Same as Geography M265.) Lecture, three hours; discussion, one hour. Review of environmental theories and their practices in dynamic U.S. and international contexts. Issues of climate change, scenario planning, and matrix ecology of the complex systems of governance. Overview of problematics of increasing internationalization (or international implications) of environmental practices as part of both green and black economies. What does environmental planning look like in this century? Letter grading.

266. Environmental Law II. (264B: 3 or 4) Lecture, three hours. Requisite: course 264A or 220B. Introduction to legal aspects of environmental law. Survey of environmental law and policy; legal consequences of public decision-making 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 field. Concurrently scheduled with Law 220. S/U or letter grading.

267. Urban Housing: Housing and Social Service Policies. (4) (Same as Public Welfare M276A and Social Welfare M290U.) Lecture, three hours; workshop, two hours; outside study, eight hours. Requisites: courses 220A, 220B. Recommended for first-year students in community development and built environment area of concentration. Introduction to real estate development process specifically geared to students in planning, architecture, and urban design. Financial decision model, market studies, designs, loan package formation, and feasibility studies. Lectures and projects integrate development process with proposed design solutions that are interactively modified to meet economic feasibility tests. SU or letter grading.

272B. Advanced Real Estate Studio. (4) Studio, three hours. Study combines disciplines of planning, urban design, construction, real estate finance and investment, and property operations and management. Students learn about real estate development, negotiations and decision-making, and gain better ability to determine real estate project feasibility, deeper understanding about financing methods and alternatives, and knowledge about ways to frame development programs for success. Letter grading.

273. Site Planning. (4) Lecture, 90 minutes; laboratory, 90 minutes. Requisite: course 274. Introduction to site planning for urban areas. SU or letter grading.

274. Introduction to Physical Planning. (4) Lecture/workshop, 90 minutes; discussion, 90 minutes. Designed for students with no prior physical planning background and for first-year MA students in community development and built environment area of concentration, and transportation policy and planning concentrations. Introductory overview of physical planning and use, site analysis, regulations, and planning tools and techniques, site analysis, and urban design, and urban form as it relates to community and neighborhood scales. Letter grading.

275. Community Development and Housing Policies. (4) (Same as Public Policy M275 and Social Welfare M290U.) Lecture, three hours; workshop, two 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. 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.

276A-276B. Urban Housing. (1 to 8 each) (Same as Law M267.) 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 contrast of legal and policy initiatives in areas of public housing, housing segregation, mortgage subsidies, landlord/tenant law, urban renewal, and community organizing. Research paper required. In Progress (276A) and SU or letter (276B) grading.

277. Historic Preservation: Principles and Practice. (4) Lecture, three hours; workshop, two hours; outside study, 90 minutes. Overview of preservation field, including history and theory, current legislation, tax incentives, preservation architecture, management, and sources of funding. Outside speakers include providers of services to homeless. Letter grading.

271A. Community Economic Development. (4) Lecture, three hours. Introduction to fundamentals of community economic development and neighborhood development strategies and basic approaches, important concepts, resources and language of field, and major strategies for revitalization of low-income neighborhoods. Letter grading.

272A. Planning for Economic Development. (4) Lecture, three hours. Exploration of economic development and identification of ways that labor and labor unions directly and indirectly influence and shape economic development. Wide range of roles that labs may play, and could play, in promoting and supporting economic development for all. Concurrently scheduled with course CM172. Letter grading.

M272. Real Estate Development and Finance. (4) Lecture, two hours; workshop, two hours; outside study, eight hours. Requisites: courses 220A, 220B. Recommended for first-year students in community development and built environment area of concentration. Introduction to real estate development process specifically geared to students in planning, architecture, and urban design. Financial decision model, market studies, designs, loan package formation, and feasibility studies. Lectures and projects integrate development process with proposed design solutions that are interactively modified to meet economic feasibility tests. SU or letter grading.
M287. Politics, Power, and Philanthropy. (4) Same as Public Policy M227 and Social Welfare M290S. 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.

M288. Nonprofit Organizations and Philanthropy: Management and Policy. (4) Same as Public Policy M228 and Social Welfare M241E. Lecture, three hours; outside study, nine hours. Increased importance of nonprofit organizations--as service providers, vehicles of humanitarian assistance, policy advocates, social entrepreneurs, innovators, and as instruments of government reform--have moved this set of institutions closer to center of social welfare, urban planning and public policy agendas. Introduction of conceptual background, examination of theories and aspects of organizational behavior, and management models and policy frameworks. Lectures, seminar-type discussion, in-class presentations, and guest presentations. Letter grading.

289. Sprawl and Smart Growth. (4) Lecture, three hours. Suburbs and metropolitan areas in U.S. and elsewhere continue to grow rapidly at their edges in ways that many consider poorly planned. Discussion of causes and impacts of sprawl as it relates to smart-growth models. Letter grading.

M291. Introduction to Sustainable Architecture and Community Planning. (4) Same as Architecture and Urban Design M247A. Lecture, three hours. Relationship of built environment to natural environment through whole systems approach, with focus on sustainable design of buildings and planning of communities. Emphasis on energy efficiency, renewable energy, and appropriate use of resources, including materials, water, and land. Letter grading.

M292. Elements of Urban Design. (4) Same as Architecture and Urban Design M271. Lecture, three hours. Introduction of basic knowledge of elements and methods of urban design, with focus on sustainable urban design and smart growth. Letter grading.

M293. Politics, Ideology, and Design. (4) Same as Architecture and Urban Design M259S. Lecture, three hours. Exploration of political context of architecture and planning work. Examination of theory and practice of design approaches applied to a 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 analysis of policies and ideology shape design process. Letter grading.

M294. Homeless in Developing Countries: Policy Ob- jectives 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. Examination 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.

M295. Introduction to Urban Humanities. (4) Same as Architecture and Urban Design M295S. Seminar, six hours; studio, six hours. Core introduction to urban humanities; collaborative and constructive methods of humanities paired with speculative and productive methods of architectural and urban design to better understand contemporary state of human environment. Core curriculum in conjunction with concepts seminar, methods laboratory, projects studio, and site visit components. Offered in summer only. S/U or letter grading.

M296. Housing Policy and Planning. (4) Same as Public Policy M243S. Lecture, three hours. Study of housing policy and planning focused partly on California, and policy implications for housing policies at state and national levels. Letter grading.
Urology / 839

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, Santa Monica-UCLA, 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 12) 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, 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.

Visual and Performing Arts Education

Interdisciplinary Minor
School of the Arts and Architecture
2101 Broad Art Center
Box 951620
Los Angeles, CA 90095-1620

Visual and Performing Arts Education
310-794-4822

Minor e-mail

David J. Roussèве, BA, Chair

Faculty Committee

Lily Chen-Hafteck, PhD (Music)
Perry M. Daniel, MFA (Theater)
David H. Gere, PhD (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/Media Arts)
Chandler McWilliams, MFA, MA (Design/Media Arts)
Hirsch Perlman, BA (Art)
Karen Hunter Quartz, PhD (Education)
David J. Roussèве, BA (World Arts and Cultures/Dance)

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; and 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 for institutional priorities to improve the quality of life for Los Angeles residents.

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 4 units), 197 (minimum 4 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 4 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. 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 Community Engagement through Arts. (3) Lecture; 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. Designated as adjunct to lower-division lecture course. Exploration of topics in greater depth. Three hours: readings, critical analysis of 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 enroll in individualized research and/or independent study and/or fieldwork, readings, discussions, research papers, and oral presentations. Topics announced in advance. May be repeated for maximum of 8 units. P/NP or letter grading.

M102. Introduction to Arts Education for Multiple Publics: Theory and Practice. (4) (Same as Education M104.) Seminar and studio, 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 student developers, implementers, and assessors. Off-campus visits, 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 in contact and conversation with active community-based artists and youth workers regularly utilizing socially engaged goals, principles, and practices. Based on field investigations, students research and write one case study on one particular arts site that is currently 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 arts programming with correctional staff, artists working in prisons, political figures, and community while critically engaging with consequences of correctional environment without outside influence of arts as role model for inspiration and discipline. Selected topics and themes in arts education in correctional institutions explored through variety of approaches that may include readings, visual documentation, 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 requisite: experience in specific art form. Enrollment by consent of instructor. Methodological approach to teaching visual arts specifically in K-12 settings. Emphasis on strategies for teaching in hybrid settings, inclusive of management strategies, evaluation, and portfolio development. Exploration through variety of approaches may include community projects, performance, guided teaching experiences, studio and/or fieldwork, readings, discussions, and oral presentations. P/NP or letter grading.

108. Performing Arts Methods for Teaching Artist. (4) Lecture, three hours; discussion, one hour. Recommended preparation: experience in specific art form. Enrollment by consent of instructor. Methodological approach to teaching dance, theatre, and 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, discussions, and oral presentations. P/NP or letter grading.

109. Design/Media Arts Methods for Teaching Artist. (4) Lecture, three hours; discussion, one hour. Recommended preparation: 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 portfolio development. Exploration through variety of approaches may include community projects, digital artwork, 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 applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

M192. Arts Education Undergraduate Practicum: Preparation, Observation, and Practice. (4) (Same as Education M190.) Seminar, three hours. Enforced requisite: course M102. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students participating in Visual and Performing Arts Education minor. Students implement and evaluate original arts education programs under guidance of faculty member in small course settings. P/NP or letter grading.

M192XP. Arts Education Undergraduate Practicum: III and Capstone Project. (4) (Formerly numbered M192SSL) (Same as Education M129XP.) Seminar, three hours: practicum, three hours: outside study, six hours. Enforced requisites: courses M102, M102X. Limited to juniors/seniors. Continuation of arts education training and supervised practicum for advanced undergraduate students participating in Visual and Performing Arts Education minor. Students continue to implement and evaluate original arts education programs under guidance of faculty members and designated guiding teachers in K-12 public school settings. May be repeated for credit with consent of instructor. 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

150 Kaufman Hall
Box 951608
Los Angeles, CA 90095-1608

World Arts and Cultures/Dance
310-825-3951

Department e-mail

---------- Chair
Cheng-Chieh Yu, MFA, Undergraduate Vice Chair
Anurima Banerji, PhD, Graduate Vice Chair

**Faculty Roster**

**Professors**

Kyle G. Abraham, MFA, in Residence
Susan L. Foster, PhD
Dan Froot, MFA
David H. Gere, PhD
Victoria E. Marks, BA
Janet M. O’Shea, PhD
Lionel A. Popkin, MFA
David J. Roussève, BA
Peter M. Sellars, BA
David Delgado Shorter, PhD
Patricia A. Turner, PhD
Cheng-Chieh Yu, MFA

**Professors Emeriti**

Judith B. Alter, EdD
Donald J. Cosentino, PhD
Irma Dosamantes-Beaudry, BA
Elise A. Dunin, MA
Pia S. Gilbert
Michael O. Jones, PhD
Angelia Leung, MA, CMA
Judy M. Mitoma, BA
Peter Nabokov, PhD
Colin H. Quigley, PhD
Allen F. Roberts, PhD
Martha E. Savigliano, PhD
Carol J. Scithorn, MA
Doris E. Siegel
Emma Lewis Thomas, PhD
Christopher A. Waterman, PhD

**Associate Professors**

Bryonn R. Bain, MA, JD
Anurima Banerji, PhD
Aparna Sharma, PhD

**Assistant Professors**

Tria Blu Waka, PhD
Alexander U. Flynn, PhD

**Lecturers**

Graceelyn W. Coad, MA
Robert W. Een, BA
Leigh R. Foaad
Students study a variety of dance throughout their academic career, learning to make dances, and critical dance studies theory, dance and culture, and dance as an ideological or 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 at 310-825-8537.

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
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. 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.

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, 169, 170, C171, C174A, C174B, C180, or other upper-division courses with faculty approval. (b) critical dance studies—Dance C145XP, C152, M157, 158, 159, 160, CM168, C171, 182, World Arts and Cultures 199, or other upper-division courses with faculty approval, (c) dance and civic engagement—Dance 165, 166, 167, C184, World Arts and Cultures 100A, 100B, 103, 114, 144, 160, 177SL, 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, 159, 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
Three streams of cross-cultural and interdisciplinary study are available in the World Arts and Cultures major: arts activism, critical ethnographies, and visual cultures. Students are introduced to all three streams through introductory courses the first year and then by a pyramidal progression, they develop intermediate knowledge in two streams followed by advanced knowledge in the stream selected as the individual specialty. Four lower-division and three upper-division core courses are required to establish interdisciplinary relationships between theory and discourse, methods, and experience. Representation is studied within societies—as people understand their own lives and the world around them—and then from the outside looking in through humanistic scholarship.

The major emphasizes hands-on activities such as internships to build skills necessary to participate in the required senior projects. In consultation with faculty advisers students select elective courses within and outside the department to increase knowledge of particular area studies, histories, literatures, theories, and methods.

Students who wish to confer with the departmental student affairs officer regarding program planning and major requirements should contact the undergraduate counselor at 310-825-8537.

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, conduction of field-based research within specific communities
• Demonstrated ability to conceptualize, plan, and execute 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

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.

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. Students may be interviewed as part of the application process.
Preparation for the Major
Required: World Arts and Cultures 100A or 100B, 104, 124; (2) a total of 20 units with a minimum of 12 units from one stream: stream 1 (arts activism)—World Arts and Cultures 103, 114, 120 (with faculty approval), 144, C146, 158A, 159A, 160, 164, C168, 174A, 174B, 177SL, 195, 199, or other upper-division courses with faculty approval; no more than 8 units of courses 114 and/or 160 may be applied toward this stream; stream 2 (critical ethnographies)—courses 120 (with faculty approval), 121, 132, C139, CM140XP, C141, C142, C146, C150, C151, 174A, 174B, 181, 195, 199, or other upper-division courses with faculty approval, stream 3 (global faculty areas)—courses 180A, courses 120 (with faculty approval), M125A, M125AL, M125B, M125BL, M125C, M125CL, M126, M128, CM130, 133, C138, C139, C141, 143B, C145, C146, C152, 174A, 174B, 180, 181, C182, C184, M187, 195, 199, or other upper-division courses with faculty approval; and (3) courses 186A and 186B (senior honors proj ect) or equivalent coursework with faculty approval.

Senior Honors Project
All students must also complete World Arts and Cultures 186A and 186B (or 10 units of equivalent coursework with faculty approval), the required senior honors project which must be selected from each student’s area of inquiry. Students begin to identify a project in spring quarter of their junior year and submit a senior project proposal for faculty approval by the beginning of the senior year. They begin to work with a designated faculty adviser in fall quarter of the senior year. Projects may include written theses, visual ethnographies, documentaries, installations, short films, internships, community service, field-based research, and curatorial projects, as well as other formats. Projects are crafted in close consultation with a faculty adviser so as to provide capstone experiences that draw together ideas and abilities from four years of study, while positioning students for postgraduate opportunities for further study or for entrance to job markets.

Graduate Majors

Choreographic Inquiry MFA

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division 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.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Dance

Lower-Division Courses

1. Global Perspectives on Dance. (5) Lecture, four courses; 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 context, with focus on creative act of dance-making, thinking and understanding act of improving, 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. World Dance Histories. (5) Lecture, four courses; seminar, two hours; studio, two hours. Lecture, three hours. Introduction to the history of dance as lived social and artistic practice while refining critical seeing, thinking, and writing skills. P/NP or letter grading.

3. IMA, PhD

The master’s degree may be earned only in the process of completing PhD requirements.

Program Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

World Arts and Cultures/Dance / 843

15. Fiat Lux Freshman Seminars. (1) Seminar, two hours. 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.

16. World Dance Histories. (3) Lecture, two hours. Comparative framework for looking at dance practices through time as they have developed around world, questioning relation of dance to culture and politics and providing students with tools for investigating histories of any given dance form. P/NP or letter grading.

45. Introduction to Dance Studies. (4) Lecture, three hours. Required course. Emphasis on field of dance studies, with focus on study of corporeality as key contemporary perspective on body. Multidisciplinary approach to dancing bodies conceptualized as social constructs, including attention to gender, race, class, and national identity. P/NP or letter grading.

52. Intermediate Special Topics. (2) Studio, three hours. Intermediate-level study of variable movement practices. May be repeated for credit without limitation. P/NP or letter grading.

56. 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.


60. 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.

65. Intermediate Modern/Postmodern Dance. (2) Studio, four hours. Intermediate-level study of 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.

67A. 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 created. 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 different historical 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.

67B. 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 processes 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 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.

70. 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 in 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.

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 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. Theories of Dance. (5) Lecture, four hours; discussion, two hours. Enforced requisite: course 45. Ideas of dance, choreography, and movement have achieved critical acceptance, and contemporary performances, art, politics, culture, and studies of social behavior. Examination of concepts and approaches to dance studies and deployments of its vocabulary within fields of concentration. Format is divided into four primary approaches: history, ethnography, choreographic analysis, and critical theory. Use of key ideas in dance to investigate allied areas of performance, embodiment, social 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 with limited number. Concurrently scheduled with course C406A. P/NP or letter grading.

C109A. 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 C409A. P/NP or letter grading.

C113A. Advanced Ballet. (2) Studio, three hours. Advanced-level dance training in ballet movement practice. May be repeated for credit without limitation. Concurrently scheduled with course C413A. P/NP or letter grading.

114. Performance Practice. (110) Four seminars, 12 hours. Rehearsal and performance in selected choreographic/theatrical work. May be repeated for credit without limitation. Concurrently scheduled with course C414. P/NP or letter grading.

C112A. Advanced Special Topics. (2) Studio, three hours. Advanced-level study of choreographic movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C412A. P/NP or letter grading.

C115. Advanced Modern/Postmodern Dance. (2) Studio, six hours; laboratory, four hours. Advanced-level work in modern, and/or postmodern movement practices. Technical 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 C415. P/NP or letter grading.


117A. Theories and Methods in Dance Composition II: Locations. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisites: courses 16, 67A, 67B. Examination of how location of dance impacts its meaning. How does occurrence of dance, concert, festival, ritual, or celebration influence experience of it? What are factors that need to be considered when locating dance in one particular place? 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. Examination of range of locations for dances, including proscenium stages, theaters in round, parks, sidewalks, temporary stage settings, and other site-specific locations that endow dance with specific significance and how various artists have worked with place in construction of new dances. Use of these analyses to assist creative process for making new dances. 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 reception of dance to 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, sequencing, and location combine to create particular effects? Answers to 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 dance; responsible for creation of three in-depth studies, each of which endeavors to construct distinctive kind of response from viewers. P/NP or letter grading.

117C. Advanced Topics in Choreography. (4) Lecture, two hours; studio, two hours; outside study, four hours. Enforced requisites: courses 16, 67A, 67B. Directed exploration in composition, with focus on developing theme-based choreographic works that are informed by selected topics through lectures, readings, and discussion. Thematic topics include contemporary issues and concerns such as image, essence, and abstraction; home, history, and memory; interculturalism; constructing identity. May be repeated for credit without limitation. P/NP or letter grading.

122. Music and Dance Collaborations. (4) Studio, four hours. Enforced requisites: courses 67A, 67B. Designed for dance students who have had prior coursework/experience in choreography and for music students who have had prior coursework/experience in music composition. Opportunity for directors, choreographers, composers, and performers 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 to other developing skills for discussion, critique, and review. Concurrently scheduled with course C222. P/NP or letter grading.

C145XP. Selected Topics in Dance Studies. (4) For all members of C145X. (Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Selected topics in study of dance and corporeality. Content varies. Enrollment is limited to those who have had prior coursework/experience in choreography and for music students who have had prior coursework/experience in music composition. May be repeated for credit with topic change. Concurrently scheduled with course C245XP. P/NP or letter grading.

152. History and Theory of Modern/Postmodern Dance. (4) Lecture, four hours; studio, two hours; outside study, six hours. Designed for juniors/seniors. Intensive study of 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. Comparative approach to modern and postmodern. Study of student projects and choreography and writing. Concurrently scheduled with course C252. P/NP or letter grading.

M157. Rechoreographing Disability. Same as Disability Studies M157. Lecture, four hours. Study of range of performance by, featuring, or about people who identify as disabled, reading and discussion of range of writing about experiences of disability and/ or postmodern movement practices. Technical training in area covered, combined with theoretical inquiry into practice and opportunities for students to undertake their own work in effect on dance studies. May be repeated for credit without limitation. P/NP or letter grading.


165. Foundations of Dance Education. (4) Lecture, two hours; laboratory, three hours. Introduction to movement concepts, skills, and teaching principles for teaching modern and postmodern dance. May be repeated for credit without limitation. P/NP or letter grading.

166. Dance as Culture in Education. (4) Lecture, two hours; laboratory, two hours. Theoretical and practical aspects of teaching ethnic dance, especially in higher education. P/NP or letter grading.

167. Creative Dance for Children. (4) Lecture, three hours; laboratory, one hour. Introduction to movement concepts, skills, and principles for teaching children’s dance; emphasis on dance as creative medium of expression. P/NP or letter grading.

CM168. Beyond Academia: Making Art in Real World. (4) (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 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.

169. Repertory Tour Ensemble. (2 or 4) Lecture, two hours; studio, four hours. Designed for World Arts and Cultures majors. Preparation of performances in community, with special emphasis on problems of touring companies with variable repertoire. May be repeated once. P/NP or letter grading.

170. Advanced Production. (1 to 2) Laboratory, three hours; outside study, up to three hours. Enforced requisite: course 70. Further development and application of practical perspectives on producing events in department, including but not limited to theatrical support and planning and 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 grading.

C171. Dance Production: Variable Topics. (4) Lecture, four hours; laboratory, two hours. Foundational experience in range of dance production practices, including fundraising/financial support, design, costume design, and stage management. Practical training in area covered, combined with theoretical inquiry into practice and opportunities for students to undertake their own work in effect on dance studies. May be repeated for credit without limitation. P/NP or letter grading.

174A. Projects in Dance. (2) Lecture, four hours; laboratory, four hours. Enforced requisite: course 16. Projects in dance; emphasis on dance as creative medium of expression; critical discussion and analysis of dance performances, studio work, and dance-based performance. May be repeated for credit without limitation. P/NP or letter grading.
C174B. Projects in Dance. (4) [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/IP or letter grading.

182. Dance and Visual Media. (4) Lecture, four hours. Examination of aesthetic differences between dance, film, and video and exploration of new aesthetically combined. Analysis of record and documentary dance film, choreo-cinema, and impact of MTV, as well as integration of media with performance. Open to students who have had prior coursework/experience in music and dance. Concurrently scheduled with course C280. 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 skills for creation of 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; organizing, budgeting, marketing, public relations, fund-raising, legalities, and archiving. Concurrently scheduled with course C243. P/IP or letter grading.

186A-186B. Senior Projects in Dance. (5-5) Lecture, four hours; outside study, 11 hours. Course 186A is required to 186B. Limited to senior Dance majors. Application of concepts, skills, and content from interdisciplinary major to individual projects. Methodologies may include theoretical, ethnographic, comparative, or participatory research. Concurrently scheduled with Dance faculty during first term; faculty-directed presentations of individual projects during second term. 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 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/IP 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. Requires: courses 67A, 67B. Designed for dancers with major whose major had prior coursework experience in choreography 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, preparing for performance analysis, and developing papers for discussion, critique, and review. Concurrently scheduled with course C222. 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 245X]. 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 term. Concurrently scheduled with course C245XP. Letter grading.

C252. History and Theory of Modern/Postmodern Dance. (4) Lecture, four hours; studio, two hours; out-side study, eight hours. Introduction to key issues in cre- ation of modern dance, with special attention to their theories and philosophies and tracing of radical shift of dance aesthetic in mid-20th century. Contemporary developments, both historical and theoretical. Student projects involve choreography and writing. Concurrently scheduled with course C152. S/U or letter grading.

C268. 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 but not limited to lighting design, set design, costume design, and stage management. Practical training in area covered, combined with theoretical inquiry into practice and opportunities for students to reflect on their own work and that of others. 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. 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 C174B. S/U or 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. 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 choreography, performance, cultural studies, production, and media. Concurrently scheduled with course C174B. S/U or letter grading.

C406A. 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 dance. 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.

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 in roles of stage manager, production assistants, and producer. May be repeated for maximum of 8 units. S/U grading.

452. Directed Field Study in Dance Education. (2 to 8) Seminar, one hour, field study. Minimum 10 units. 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.

490. 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 or 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.

498. 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. Participating professional, administrative, or 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 intercultural, interdisciplinary study of art, aesthetics, and performance. Examination of interactions among various modes of creative expression, 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, visual and verbal cultures, oral genres, cultural study of culture and performance, including individual and cultural identity through arts, creation of dance/theatrical performance, theoretical and analytical approaches to arts practice, arts activism, and other topics pertaining to broad fields of culture, performance, and dance. Research inquiry methods may include readings, assigned written analysis, supervised fieldwork, individual and collaborative assignments, and/or practice-oriented processes. Substantial culminating project integrating theoretical and practical components of selected seminar topic required. May be repeated 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 who are their areas of expertise and illuminating many paths of discovery at UCLA. P/IP or letter grading.

20. Culture: Introduction. (5) Lecture, four hours. Introduction to key concepts and major theoretical and methodological debates that characterize field of cultural studies, including discussion of notions of culture, popular culture, subculture, youth culture, hegemony, gender, race, class, and national identity. Letter grading.

22. Introduction to American Folklore Studies. (5) Lecture, four hours; discussion, one hour; outside study, 10 hours. Historical/cultural survey of role of folklore in development of American civilization and of influence of American experience in shaping folklore in American society; attention to representative areas of inquiry and analytical procedures. P/IP or letter grading.
24. World Arts, Local Lives. (5) Lecture, three hours; discussion, one hour. Use of Fowler Museum’s long-term exhibition entitled “Intersections: World Arts/Local Lives” as object of study to examine many in-sights into social, political, and religious experience. Drawing heavily on cultures of Africa, Asia, Pacific, and indigenous Americas, both anc-ient and contemporary, consideration of degree to which notions of aesthetics and efficacy are inter-twined and interdependent in art forms made to inter-vene in people’s lives in active, instrumental ways. Use of specific case studies to illustrate and interrogate theoretical paradigms. P/NP or letter grading.

33. Colonialism and Resistance. (5) Lecture, three hours; discussion, one hour. Introduction to study of indigenous worldviews as they are expressed through art, mythology, ritual, health practice, languages, and ecology. Examination of the historical context and signifi-cation of issues of colonialism, tradition, religious change, and legal and social implications of epistemologi-cal differences between people. Examination of critical political 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 bound-aries. Variable topics, such as body music, cross-cul-tural textile creation, or mural painting, in cultural and historical contexts. May be repeated for credit without limition. P/NP or letter grading.

78. Private Instruction in World Arts and Cultures. (2 to 4) Studio, three to six hours. Designed for freshmen. One-on-one 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.

M79. Food Politics: Cultural Solutions to Political Problems. (5) Formerly numbered 79.) (Same as Food Studies M79.) Lecture, four hours; discussion, one hour. Examination of issues of environmental and public health effects of international trade in food, agri-culture, influence of corporations on government, ani-mal ethics, food deserts and urban gardening, and food insecurity. Focus on representation of such is-sues in poetry, lectures, public lectures, memoirs, novels, and visual art, as well as on initiatives to ad-dress 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 circu-lation via social media. Practical exercises based on materials and instructions provided in class, spanning production and postproduction processes of video making. Evaluation of students on these exer-cises and written critiques of edited student projects by all materials developed during course. Training in technical aspects of video production and usage of video tools. P/NP or letter grading.

85. Sophomore-Year Proposal. (1) Lecture. 90 min-utes. 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. Lim-ited 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. 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 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

100A. Art as Social Action. (5) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Discussion of what constitutes artist’s social responsi-bility today, and how, as art creators, we engage in dis-rect 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 right and wrong action is culturally intuited, nurtured, and developed. Study of cultural strategies of moral engagement, per-suasion, and inquiry in personal and public life, in-cluding approaches to social conscience and civil disobedience. P/NP or letter grading.

101. Theories of Performance. (5) Lecture, four hours; studio, two hours. Performance commonly re-fers to activities at or after the performance stage. Explosion of that narrow notion of performance into scholarship from young field of performance studies, which draws on disciplines of anthropology, cultural studies, postcolonial studies, linguistic, poststructuralist theory, and sociology. Exploration in studio of concept of performing theory by creating interdisciplinary perfor-mance works that engage with and amplify theories studied. P/NP or letter grading.

103. Arts in Communities. (5) Lecture, four hours. In-troduction to theoretical and practical understanding of field of community arts by and for multiple publics. Review of relevant issues in field and exploration of role of artists and activist artists in strategies for social change, representation, and community building. Through national and international examples, exploration of art works that emphasize participation of citizens in community-based and culturally relevant performance, art, and exhibition. Examination of pro cesses of creative thinking, community involvement, collaborative enterprise, research, and education in community arts. Letter grading.

104. Representations: Theories and Practices. (5) Lecture, three hours. Enforced requisite: course 20. Limited to juniors/seniors. Advanced. Laboratory, research, and education in conducting field-based re search, including nature, uses, and limitations of major data-gathering procedures, ethical concerns, sam-pling, checks and controls, teamwork, interventions, and results as not only tangible but also personal out-comes of inquiry but also personal and intangible. Through readings, discussion, and hands-on exer-cises, students learn how to plan fieldwork projects and write proposals, prepare consent forms and deal with ethical issues, observe behavior, construct ques-tionnaires, interview, use audiovisual documentation, and produce art. Laboratory, research, and education. M105A. Beyond Mexican Mural: Beginning Muralism and Community Development. (4) (Same as Art M186A and Chicana/o and Central American Studies M186A.) Studio/lecture, four hours. Corequisite: course M186A. Investigation of murals as method of community education, development, and empower-ment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students re-search, design, and work with community partici-pants. 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. Laboratory, research, and education in conducting field-based research, including nature, uses, and limitations of major data-gathering procedures, ethical concerns, sampling, checks and controls, teamwork, interventions, and results as not only tangible but also personal outcomes of inquiry but also personal and intangible. Through readings, discussion, and hands-on exercises, students learn how to plan fieldwork projects and write proposals, prepare consent forms and deal with ethical issues, observe behavior, construct questionnaires, interview, use audiovisual documentation, and produce art. Laboratory, research, and education. 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. Laboratory, research, and education in conducting field-based research, including nature, uses, and limitations of major data-gathering procedures, ethical concerns, sampling, checks and controls, teamwork, interventions, and results as not only tangible but also personal outcomes of inquiry but also personal and intangible. Through readings, discussion, and hands-on exercises, students learn how to plan fieldwork projects and write proposals, prepare consent forms and deal with ethical issues, observe behavior, construct questionnaires, interview, use audiovisual documentation, and produce art. Laboratory, research, and education. P/NP or letter grading.

114. Performance Practicum. (1 to 4) Studio, three to 12 hours. Rehearsal and performance in selected community-based or theoretical work. May be repeated for credit without limitation. P/NP grading.

120. Selected Topics in Cultural Studies. (4) Lecture, three hours. Designed for juniors/seniors. Se-lected topics in interdisciplinary study of arts and per-formance 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. Enforced requisite: course 41. Investigation of murals as method of some ways that ethnography and performance intersect, as well as development of some preliminary ap-proaches to effectively document performance events. Reading of ethnographic and performance texts. Reading of anthropology and performance. P/NP, or letter grading.}

124. Introduction to Field-Based Research Meth-ods. (5) Lecture, three hours. Introduction to methods, techniques, and issues involved in conducting field-based re-search, including nature, uses, and limitations of major data-gathering procedures, ethical concerns, sam-pling, checks and controls, teamwork, interventions, and results as not only tangible but also personal out-comes of inquiry but also personal and intangible. Through readings, discussion, and hands-on exer-cises, students learn how to plan fieldwork projects and write proposals, prepare consent forms and deal with ethical issues, observe behavior, construct ques-tionnaires, interview, use audiovisual documentation, and produce art. Laboratory, research, and education. P/NP or letter grading.
C125. 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 how power, desires, and economies function. Topics include scenic regimes, aesthetics of streamlined design, and visuality and liberation. Concurrently scheduled with course C252. P/NP or letter grading.

C158. Theorizing Arts Activism. (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 public health and medical literature. Concurrently scheduled with course C258. P/NP or letter grading.

C160. Performing Sexual Health: UCLA Sex Squad. (4) Seminar, three hours. Exploration of activist sexual health education theater, which has been both locally and globally. Examination 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 in sex, sexuality, HIV/AIDS, and powerful history of artists’ interventions to open urgent dialogues on these taboo topics. May be repeated for maximum of 12 units. P/NP or letter grading.

C164. Public Writing in Arts. (4) Lecture, four hours; outside study, eight hours. Survey of journalistic approaches to writing with eye toward shaping critique of public writing practices and putting that critique into practice. Exploration of new mode(s) of (and venues for) writing that rebalance power differentials between art makers and commentators. Concurrently scheduled with course C264. P/NP or letter grading.


C173. Sound Resources for Performance. (4) Lecture, three hours; studio, one hour; outside study, eight hours. 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 C268. P/NP or letter grading.

C177SL. Taking Action: Arts Practice and Community Service. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course 103. Designed for juniors/seniors. Application of training in world arts and cultures through service projects designed by stu-
M179. Food Activism in Los Angeles: Narrating Pasts, Imagining Futures. (4) (Same as Food Studies M179.) Lecture, two hours; discussion, two hours. Introduction to study of local and international food politics and oppression, such as community gardens, pop-up markets, and food carts. 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.

C180. Variable Topics in Video Production/Prac. (4) Lecture, two hours: laboratory, two hours. Enforced prerequisite: course 80. Training in low-budget and independent video production practice as research tool. Visual ethnography combined with experimental film. Introduction to history, ethics, and aesthetics of documentary subjects such as culture, performance, and social change. (Same as Visual Studies C180.) Lecture, three hours; outside study, nine hours. Survey of theoretical issues and problems in study of culture and body movement in cultural, social, and historical context. P/NP 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 body, body symbolism, embodiment of identity (including gender, race, ethnicity, and class 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 methods and methodological issues in ethnographic study of performance in current research. Possible areas of study include documentation, participant observation, oral history and interview techniques, performative dimensions of ethnographic research, ethics, and politics of ethnographic research. S/U or letter grading.

210. Ethnography of and as Colonialism. (4) Seminar, three hours. Beginning with 1550 debates over Indian humanity and ranging to contemporary scholar ship about and by indigenous peoples, focus on intersections of writing, colonialism, violence, and historiography in Americas. Exploration of relationships between 16th-century reasoning about race and postmillenial, Western, and academic practices of writing history. Development of critical stance on utility of postcolonial theories as such perspectives bear on anthropological and historical studies of indigenous peoples. Regions include Andes, Orinoco Delta in Venezuela, Valley of Mexico, and several examples throughout U.S. southwest, plains, and northeast. S/U or letter grading.

CM213B. Legislative Theater for Race and Gender Justice. (Concurrent with American Studies CM213B.) Lecture, three hours; discussion, one hour (when scheduled). Exploration and application of range of interactive methods and arts-based strategies with participants from Los Angeles community in order to research and influence public policy and legislative change. Students and campus partners create and perform legislative the ational addressing issues of race 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, work shops, performances, and critiques of own original writings and performances developed 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 Design CM230.) Lecture, three hours. Survey of array of spaces and places from cross-cultural and interdisciplinary perspectives. May be repeated for credit with topic change. S/U or letter grading.

CM230B. Space and Place. (4) (Same as Architecture and Urban Design CM230B.) Lecture, three hours. Survey of array of spaces and places from cross-cultural and comparative perspectives and with performance emphasis, with focus on mutual interaction of human beings 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 CM130. S/U or letter grading.

C238. American Indian Arts in Performance. (4) Seminar, four hours. Acquisition of awareness and sensitivity to dynamic contexts within Native American worlds. Concurrently scheduled with material culture and development of ability to focus on them and learn to conduct research on them. Examination of wide range of American Indian art and craft traditions within widest possible contexts, with performance given its most generous definition. Study of spectrum of genres, including architecture, social and dance regalia, stories, performance art, 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 C138. 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 performance of 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 CM240.) (Same as Gender Studies 370C.) Seminar, four hours; outside study, eight hours. Designed for graduate students. Examination of role of healers, historically and within contemporary culture-specific contexts. Exploration of psychological and physical healing through art forms practiced by rites of passage and healing rituals and of role of arts in healing troubled communities. Concurrently scheduled with course CM140XP. S/U or letter grading.

C241. Carnival and Festivity. (4) Lecture, three hours; fieldwork, one hour. Study of traditional calendrical, religious, and local festivals and related events in their cultural and historical contexts, with emphasis on American festival occasions and their Old World antecedents. Topics include carnivalesque and carnival and rituals of myth and ritual. Concurrently scheduled with course C141. S/U or letter grading.


C246. Politics of Performance. (4) Seminar, four hours; outside study, eight hours. Designed for graduate students. Opportunity to reflect on artists and intellectuals as cultural workers operating in domains of ideology, aesthetics, and theory. Analysis of such keywords as ideology, aesthetics, theory, art, politics, intervention, intellectuals, and artists. Concurrently scheduled with course C146. S/U or letter grading.

C250. Critical Ethnographies. (5) Lecture, three hours. Enforced requisite: course 20 or 33. Survey of major theoretical and methodological strategies to explicitly politicize ethnographic method as key component of cross-cultural understanding. Examination of conceptual notions of insider and outsider and while also developing various perspectives on performed acts of identity formation. Concurrently scheduled with course C150. S/U or letter grading.

C251. Ethnography of Religions. (4) Lecture, three hours. Religions are cultural systems helping people to cope with life, with fortune, deal with death, and find fulfillment in life. Case studies reveal commonalities across cultures as cosmologies define moral being in world, divination determines causes of difficulty, spirit mediumship and possession, ritual intervention, and sacred arts render deities tangible. Nonjudgmental comparative investigation stressing conversation. Concurrently scheduled with course C151. 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 world permit understanding of social processes through which gaze is determined and involves exploration of iconic and iconographic approaches of documentary film. Analysis of how performativity, subjectivity, and ideology percolate documentary aesthetics and inform cinematic narrative, audiovisual, and editorial decisions. Concurrently scheduled with course C152. S/U or letter grading.

C258. theorizing Arts Activism. (4) Seminar, three hours. Introduction to theorizing of arts activism to provide context for concerted analysis, creation, and protest. Readings include theoretical texts and current performance histories. Consideration of one particular activism project, with emphasis on action sponsored by UCLA Art and Global Health Center. Arts activist projects organized by seminar 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 public health and medical literature. Seminarize their own arts-based health promotion interventions. Concurrently scheduled with course C159. S/U or letter grading.

C264. Public Writing in Arts. (4) Lecture, four hours; outside study, eight hours. Survey of journalistic approaches to writing about arts, with eye toward shaping critique of public writing practices and putting that critique into practice. Exploration of new modes of (and venues for) writing that rebalance power differential between art makers and commentators. Concurrently scheduled with course C164. S/U or letter grading.

C268. Beyond Academia: Making Art in Real World. (4) (Same as Dance 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.

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 recorded store, Internet, and music library; environmental sounds; found sounds (recycling, 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 requisite: course 20. 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 art. Focus on methods and 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 grade only.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or instructor. Concurrently scheduled with 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 editing, bibliography, filmography, 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 Cultures Department teaching assistants. Lectures, discussions, 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, three hours; outside study, three to nine hours. 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 8 units. S/U grading.

495. Teaching Assistant Seminar. (2) Seminar, one hour; laboratory, three hours. Required of all World Arts and Cultures 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 to four hours; tutorial in preparation of course syllabi and discussion of topics relevant to developing teaching skills. Fundamental principles and methods with which to design course syllabi and related resources that include development of teaching philosophy, evaluating/selection 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.

596R. Directed Study or Research in Hospital or Community. (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.


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 Transfer 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’s 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.

Faculty Roster

Lecturers
Teddi L. Chichester, PhD
Tamar S. Christensen, MA
Shane Crosby, PhD
Margaret E. Davis, MA
Nathan A. Deuel, MFA
Dominiqua Dickey, MFA
Randall J. Fallow, PhD
Mary E. Galvin, PhD
Janet M. Goodwin, MA
Laura Hartenberger
Thomas A. Hitchner, PhD
Christine Holten, MA
Laila D. Hualpa, PhD
Colleen M. Jaurrettche, PhD
Darien B. Johnson, MFA
Linzi M. Juliano, PhD
Jeremy C. Kelley, PhD
David M. Kipen, BA
Karl F. Lisovsky, MA
Maja Manojlovic, PhD
Andrew M. Martinez, PhD
Laura M. Mattenson, MA
Mia L.G. McIver, MA
Nedda Meh dizedeh, PhD
Michele L. Moe, PhD
Ashley Newby, PhD
Esha Niyog De, PhD
Shelby A. Popham, PhD
Tara L. Prescott-Johnson, PhD
Susannah Rodriguez Drissi, PhD
Gregory J. Rubinson, PhD
Mary G. Samuelson, PhD
Leslie A. Sherwood, MS
Bruce D. Stone, MFA
Donald O. Vincent, MFA
Dana Cairns Watson, PhD
Amber I. West, PhD
Laurel A. Westrup, PhD

Overview

Writing Programs is committed to inclusive pedagogy and student success, serving undergraders 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 workshop courses, 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 ESL 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 Transfer 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’s 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 audiotaping 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-evaluation, as well as through individualized instructor feedback. Offered in summer only. P/NP or letter grading.

23. American Culture through Film. (4) Lecture, four hours. Designed to improve listening comprehension and discussion skills by viewing and analyzing variety of American films. Emphasis on understanding and using idiomatic language, expanding vocabulary, recognizing dialect differences, and reflecting on cultural similarities and differences. 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 academic reading, vocabulary, 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 writing. 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-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 and reports, researching companies, 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. Meaningful discussions in conjunction with salient written/spoken assignments that situate language within authentic contexts. Topics may include gender, sexuality, politics, humor, intercultural communication, media, environmental issues, and local/regional identities. P/NP or letter grading.

89. Honors Seminars. (1-3) 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 and led by lecture course instructor. May be applied toward honors credit for eligible students. 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 varies according to topics covered and/or audience to whom course is directed. May be repeated for credit with the consent of instructor. Offered in summer only. P/NP (undergraduates), S/U (graduates), or letter grading.

97B. Variable Topics in English as a Second Language. (2) Lecture, two hours. Enforced requisite: course 100 or placement test. Emphasis on making presentations, as well as through individualized instructor feedback. Offered in summer only. P/NP (undergraduates), S/U (graduates), or letter grading.

97C. 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

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. Individual honors contract required as adjunct to upper-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 credit. Individual contract required; see academic coordinator. P/NP (undergraduates), S/U (graduates), or letter grading.

104. Public Speaking for Multilingual Students. (4) Lecture, four hours. Emphasis on making presentations in academic and professional settings, interacting with audience members, leading group discussions, and preparing for job interviews. Videorecording of student performances to allow students to improve through self-evaluation and through individualized instructor feedback. P/NP or letter grading.

105. Academic Reading and Style for Multilingual Students. (4) Lecture, four hours. Emphasis on comprehending and author styles and grammatical and vocabulary differences, or letter grading.

106. Workshop in Disciplinary Writing for Multilingual Students. (4) Lecture, four hours. Requisite: satisfaction of English as a Second Language requirement. Introduction to effective approaches to appreciating and analyzing variety of literary texts written in English. Review of literary techniques and terms to deepen understanding of poetry, short stories, and novels. Focus on author styles and grammatical and vocabulary choices. P/NP or letter grading.

107. Academic Reading and Vocabulary for Multilingual Students. (4) Lecture, four hours. Emphasis on reading comprehension, using English academic reading and vocabulary beyond those covered in current course offerings. Individual honors contract required as adjunct to upper-division lecture course. Individual contract required; see academic coordinator. P/NP (undergraduates), S/U (graduates), or letter grading.

108. 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.

109. 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 reading, writing, and language skills through focusing on reading comprehension, vocabulary development, and analysis of disciplinary research articles, with additional work on fundamental composition techniques, grammar, and editing. S/U or letter grading.

110. High-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 disciplinary research articles, with additional work on fundamental composition techniques, grammar, and editing. S/U or letter grading.

Graduate Courses

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 academic, writing, and language skills through focusing on reading comprehension, vocabulary development, and analysis of disciplinary 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: 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 disciplinary research articles, with additional work on fundamental composition techniques, grammar, and editing. S/U or letter grading.

302. Advanced Writing Workshop for International Graduate Students. (4) Lecture, five hours. Requisite: Graduate 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
1. Introduction to University Discourse. (4) Lecture, four hours. Satisfies Test of Oral Proficiency (TOP) requirement for university-level students who received marginal pass on TOP. Focus on accurate articulation of sounds, stress, linking, and other features of fluent spoken English, using authentic models of classroom language. Additional emphasis on comprehension within academic text. English, using authentic models of classroom language. Additional emphasis on comprehension within academic text.

2. Approaches to University Writing. (5) Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, explaining visuals, handling questions, and interacting in office hours. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.

3. Classroom Communication for International Teaching Assistants I. (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 requisite to 312. Focus on stress, rhythm, and intonation of fluent spoken English using audiotapes and transcripts of actual teaching assistants. Communication patterns include building rapport, giving instructions, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U 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. Course 311 is not requisite to 312. Focus on stress, rhythm, and intonation of fluent spoken English using audiotapes and transcripts of actual teaching assistants. Communication patterns include building rapport, giving instructions, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.

33. 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. Course 311 is not requisite to 312. Focus on stress, rhythm, and intonation of fluent spoken English using audiotapes and transcripts of actual teaching assistants. Communication patterns include building rapport, giving instructions, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.

English Composition

Level Two Courses

1. Introduction to University Discourse. (4) Lecture, four hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on accurate articulation of sounds, stress, linking, and other features of fluent spoken English, using authentic models of classroom language. Additional emphasis on understanding and interpreting written language. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, explaining visuals, handling questions, and interacting in office hours. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.

2. Approaches to University Writing. (5) Lecture, four hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, explaining visuals, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.

3. Approaches to University Writing. (5) Lecture, four hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, explaining visuals, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.

4. Approaches to University Writing. (5) Lecture, four hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, explaining visuals, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.

5. Approaches to University Writing. (5) Lecture, four hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, explaining visuals, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.

6. Approaches to University Writing. (5) Lecture, four hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, explaining visuals, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.

7. Approaches to University Writing. (5) Lecture, four hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, explaining visuals, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.

8. Approaches to University Writing. (5) Lecture, four hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, explaining visuals, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.

9. Approaches to University Writing. (5) Lecture, four hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, explaining visuals, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.

10. Approaches to University Writing. (5) Lecture, four hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, explaining visuals, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.

11. Approaches to University Writing. (5) Lecture, four hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, explaining visuals, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.

12. Approaches to University Writing. (5) Lecture, four hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, explaining visuals, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. S/U grading.
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. Students hone research, critical reading, and writing skills through class sessions, digital research note taking, and digital writing. P/NP or letter grading. 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. Focus on professional writing exploring current issues, developments, or debates within specific field of science or technology. May be repeated for maximum of 10 units. P/NP or letter grading.

136. Practical Writing and Editing. (Formerly numbered 136A.) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Focus on developing professional writing skills in rhetorical range in professional writing, combined with experience proofreading and editing one's own writing as well as that of others. P/NP or letter grading.


M138. Topics in Creative Writing. (Same as English M138.) Seminar, three hours. Requisite: English Composition 3 or 130A or 130B. Intensive 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 10 units. May not be used to satisfy workshop requirements for English creative writing concentration. P/NP or letter grading.

M141. Current Methods in Language Teaching. (5) (Same as Linguistics M141.) Lecture, four hours; discussion, one hour. Enforced requisite: Linguistics 20. Survey of theory and practice in teaching second languages, including (1) approaches to teaching second languages, (2) current theory and practice underlying skills-based instruction and integrated approaches, and (3) factors that 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.

142. Teaching Grammar and Style. (4) Lecture, four hours. Requisite: Linguistics 20. Focus on the practice of explaining structures and to articulate written and oral material and performances in areas such as film, literature; rhetorical analysis of content 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.

130C. Professional Writing: Science and Technology. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Emphasis on communicating complex technical concepts and scientific research findings in clear and accessible way to non-specialist audiences. 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. 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.

Writing Programs / 853

129B. Fine Arts. (5) Lecture, four hours. May be repeated for maximum of 10 units. P/NP or letter grading.

129C. Physical and Life Sciences. (5) Lecture, four hours. May be repeated for maximum of 10 units. P/NP or letter grading.

129D. Fine Arts. (5) Lecture, four hours. May be repeated for maximum of 10 units. P/NP or letter grading.

129E. Professional Writing: Arts and Entertainment. (5) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing requirement, course 3. Emphasis on the 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.

131A-131C-131D. Specialized Writing. (4–4–4) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Advanced topics in professional writing exploring current issues, developments, or debates within specific field of science or technology. May be repeated for maximum of 10 units. P/NP or letter grading.

131E. Professional Writing: Business and Entrepreneurship. (5) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing requirement, course 3. Focus on developing professional writing skills in rhetorical range in professional writing, combined with experience proofreading and editing one's own writing as well as that of others. P/NP or letter grading.
M185. Professional Writing Capstone. (4) (Same as English M185.) 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. 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 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.

M192. Undergraduate Practicum in English: Journals. (2) (Same as English M192 and Environment M192.) Seminar, two hours. Training and supervised practicum for undergraduate student editors of campus journals supervised by faculty members in English, Institute of the Environment and Sustainability, and/or Writing Programs. May be repeated for credit. P/NP or letter grading.

195. Community or Corporate Internships in English Composition. (4) Tutorial, to be arranged. Requires: course 3 or 3H, satisfaction of Writing II requirement. 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.
300. Teaching English. (4) Lecture, four hours. Required of candidates for single subject credential in English. Study of theories of rhetoric, composition, reading, and literature as they apply to postsecondary school or college English curriculum. 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 not be substituted for any departmental enrollment requirement. May be repeated for credit. S/U grading.

401. Current Issues in University Writing Pedagogy. (4) Seminar, three hours. Limited to graduate students. Exploration of theories of postsecondary writing pedagogy that may include focus on changing institutional role of writing instruction, multimodal composition, and linguistic/educational diversity. 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 curriculum. Examination of writing conventions, genres, and their role in graduate student academic disciplines, with focus on evolving academic discourse in emerging and hybrid areas of inquiry. Development of best practices for adapting writing pedagogy to changes in disciplinary academic discourse, with discussion of challenges for multilingual learners. Letter grading.

403. Language Pedagogy: Form, Meaning, and Function. (4) Seminar, three hours. Designed for graduate students. Survey of theories and applications of language structures and conventions, with insights from discourse analysis and functional grammar. Designed to develop instructor ability to explain structures and articulate language-based issues of meaning. Integrates research and successful applications of knowledge for improved language-related instruction and feedback in composition studies. Letter grading.

404. Diversity and Student-Centered Pedagogy. (4) Seminar, three hours. Limited to graduate students. Survey of literature on heterogeneous classrooms, 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.

495A. Teaching Preparation Seminar: Second Language Learners. (4) Seminar, three hours. 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.

495B. Supervised Teaching of Second Language Learners. (4) Seminar, two hours. Enforced requisite: course 495A. Required of all English as a second language (ESL) teaching assistants each term they are assigned to teaching. Focus on composition pedagogy, writing course design, assessment of student writing, and specialized problems that may occur in teaching ESL courses. S/U grading.

495C. 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 students seeking Graduate Certificate in Writing Pedagogy. Focus on composition pedagogy, writing course design, assessment of student writing, and specialized problems that may occur in teaching English Composition 3. S/U grading.

495D. Supervised Teaching of First-Year Composition. (2) Seminar, two hours. Enforced requisite: course 495C. Required of all teaching assistants who are assigned to English Composition 3 courses. Focus on composition pedagogy, writing 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.

495E. 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 and open to students seeking Graduate Certificate in Writing Pedagogy. Training focused on composition pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in academic contexts. Practical concerns of creating assignments, marking and grading essays, and conducting peer reviews and conferences. May be repeated for credit. S/U grading.

495F. Supervised Teaching of Writing in Disciplines. (2) Seminar, two hours. Enforced requisite: course 495E. 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. (2) Seminar, two hours. Limited to graduate students. Enforced requisite: course 495I. Required of all teaching assistants for writing 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 engineering contexts. Practical concerns of creating assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

M495J. Supervised Teaching of Writing for Engineers. (2) Same as Engineering M495J. Seminar, one hour. Enforced requisite: course M495I. Required of all teaching assistants in their initial term of teaching 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 creating 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 Chemical Engineering M495K. Seminar, two hours. Limited to graduate students. Enforced requisite: course M495K. Required of all departmental teaching assistants (TAs). May be taken concurrently while holding a TA appointment. Seminar on pedagogy and logistics of being a TA with emphasis on student-centered teaching, clear communication, and multimodal teaching and learning. S/U grading.

M495L. Teaching Preparation Seminar: Clusters. (2) Seminar, two hours. Limited to graduate students. Required of all Clusters teaching assistants in their first quarter with Clusters. Training focused on student-centered pedagogy, reflective teaching, composition pedagogy, assessment of student writing, guidance of revision process, and specialized teaching issues that may occur in Clusters context. Practical concerns of lesson planning, discussion leading, responding to and grading essays, and conducting peer reviews and conferences. S/U grading.

495N. Teaching Preparation: Writing-Intensive Seminar Development. (2) Seminar, two hours. Limited to graduate students. Required of all Clusters teaching assistants teaching their first Clusters seminars. 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 and Clusters contexts. 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 teaching English as a second language (ESL) courses not exempt by appropriate departmental or program training. Focus on pedagogy that serves heterogeneous classrooms, with emphasis on diversity of race, ethnicity, linguistic background, and academic preparedness. Practical concerns include lesson planning and professionalization for composition instructors. S/U grading.

M495Q. Supervised Summer Seminar: Language and Composition. (2) Seminar, 90 minutes. Required of all teaching assistants planning to teach English as a second language (ESL) composition as part of AAP’s summer bridge program. Focus on pedagogy that serves heterogeneous classrooms, with emphasis on diversity of race, ethnicity, gender, socioeconomic status, citizenship status, and academic preparedness. Practical concerns include lesson planning and professionalization for composition instructors. 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 portfolios, 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 and 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
Eleni T. Kounalakis, Lieutenant Governor of California
Cheryl Lott (2022), Vice President, Alumni Associations of UC
Gavin C. Newsom, Governor of California
Anthony Rendon, State Assembly Speaker
Tony K. Thurmond, State Superintendent of Public Instruction
Art Torres (2022), President, Alumni Associations of UC

Appointed Regents

Maria Anguiano (2028)
Richard C. Blum (2026)
Laphonza Butler (2030)
Michael Cohen (2030)
Gareth Elliott (2025)
Cecilia Estolano (2022)
Howard Peter Guber (2029)
Sherry L. Lansing (2022)
Richard Leib (2026)
Hadi Makarechian (2032)
Eloy Ortiz Oakley (2024)
Lark Park (2029)
John A. Pérez (2024)
Janet Reilly (2028)
Richard Sherman (2025)
Jonathan Jay Sures (2032)
Alexis Atsilvsgi Zaragoza (2022), Student Regent

Faculty Representatives

Susan Cochran (2022), Senate Vice Chair
Robert B. Horwitz (2022), Senate Chair

Staff Adviser

Lucy Tseng (2022), UCLA

Officers of the Regents

Gavin C. Newsom, President
Alexander Bustamante, Senior Vice President; Chief Compliance and Audit Officer
Charles F. Robinson, Vice President; General Counsel
Cecilia V. Estolano, Chair
Richard Leib, Vice Chair
Jagdeep Singh Bachher, Vice President, Investments; Chief Investment Officer
Anne Shaw, Secretary and Chief of Staff

UC Office of the President

Michael V. Drake, University President
Nathan Brostrom, Executive Vice President; Chief Financial Officer
Michael T. Brown, Executive Vice President, Academic Affairs; Provost
Carrie Byington, Executive Vice President; UC Health
Rachael Nava, Executive Vice President; Chief Operating Officer
Alexander Bustamante, Senior Vice President; Chief Compliance and Audit Officer
Claire Holmes, Senior Vice President, External Relations and Communications
Jagdeep Singh Bachher, Vice President, Investments; Chief Investment Officer
Pamela Brown, Vice President, Institutional Research and Academic Planning
Mark Cianca, Vice President, Information Technology Services (Interim); Chief Information Officer
Yvette Gullatt, Vice President, Graduate, Undergraduate, and Equity Affairs
Glenda Humiston, Vice President, Agriculture and Natural Resources
Craig Leasure, Vice President, National Laboratories
Cheryl Lloyd, Vice President, Human Resources (Interim)
Theresa A. Maldonado, Vice President, Research and Innovation
Charles F. Robinson, Vice President; General Counsel
Kieran Flaherty, 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 Gillman, 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
Emily A. Carter, Executive Vice Chancellor and Provost
Michael J. Beck, Administrative Vice Chancellor
Gregg B. Goldman, Vice Chancellor; Chief Financial Officer
Monroe Gorden, Jr., Vice Chancellor, Student Affairs
As of publication, UCLA has 531 endowed chairs that have been activities of distinguished faculty members. The principal forms of private support are endowed professorships, or chairs, which support the educational and research missions of the three missions of education, research, and community service. Among the 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.

### 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.

### 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
Nobel Biocare Endowed Chair in Surgical Implant Dentistry
Dr. No-Hee Park Chair in Dentistry
Tarrson Family Endowed Chair in Periodontics
United Cerebral Palsy of Los Angeles Endowed Chair in Special Patient Care
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
George F. Kneller Chair in Education and Anthropology
George F. Kneller Chair in Education and Philosophy
Presidential Chair in Education and Diversity
Presidential Chair in Information Studies
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. Boelte Chair in Engineering
Collins Aerospace Term Chair for Excellence
Collins Aerospace Term Chair for Innovation
Vijay K. Dhir Chair in Engineering
Englekirk Presidential Endowed Chair in Structural Engineering
Traugott and Dorothea Frederking Endowed Chair
Norman E. Friedmann Chair in Knowledge Sciences
Armond and Elena Hairapetian Chair in Engineering and Medicine
Leonard Kleinrock Chair in Computer Science
Evelyn Knight Chair in Engineering
Levi James Knight, Jr., Chair in Engineering
Fang Lu Endowed 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
Ralph M. Parsons Foundation Chair in Chemical Engineering
Jonathan B. Postel Chair in Computer Systems
Jonathan B. Postel Chair in Networking
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
John P. and Claudia H. Schauerman Endowed Chair in Engineering and Applied Science
Ronald and Valerie Sugar Dean of Henry Samueli School of Engineering and Applied Science
Ronald and Valerie Sugar Endowed Chair in Engineering
Symantec Term Chair in Computer Science
Carol and Lawrence E. Tannas, Jr., Endowed Chair in Engineering
Carol and Lawrence E. Tannas, Jr., Endowed Term Chair in Engineering
William D. Van Vorst Chair in Chemical Engineering Education
Volgenau Chair for Engineering Excellence
Volgenau Chair for Engineering Innovation
Volgenau Endowed Chair in Engineering
Wintek Endowed Chair in Electrical Engineering
Neria and Manizheh Vomtoubian Endowed Chair in Cancer and Risk Sciences

School of Law

Norman Abrams Endowed Chair in Law
Omar and Azmerald Alfi Chair in Islamic Law
Harry Graham Balter Chair in Law
Barrall Family Endowed Chair in Tax Law and Policy
David A. Binder Endowed Chair in Clinical Law
Connell Professorship of Law
Jesse Dukeminier Professorship in Law
Dan and Rae Emmett Endowed Chair in Environmental Law
Rosalinde and Arthur Gilbert Foundation Endowed Chair in Civil Rights and Civil Liberties
Paul Hastings Endowed Chair in Business Law
Robert Henigson Endowed Chair in Legal Ethics
Pete Kameron Endowed Chair in Law
Pete Kameron Chair in Law and Social Justice
Michael J. Klein Chair in Law
Richard C. Maxwell Chair in Law
McDonald/Wright Chair in Law
Lowell Milken Chair in Law
Arjay and Frances Fearing Miller Chair in Law
Rachel F. Moran Endowed Chair in Law
Susan Westerberg Prager Endowed Chair in Law
Honorable Harry Pregerson Endowed Chair in Law
David G. and Dallas P. Price Chair in Law
Promise Institute Chair in Comparative and International Law
Promise Institute Chair in Human Rights
David Sanders Professorship in Law and Medicine
Michael H. Schill Endowed Chair in Law
Gary T. Schwartz Endowed Chair in Law
Security Pacific Bank Chair
Ralph and Shirley Shapiro Chair in Law
Shirley and Ralph Shapiro Endowed Chair in Environmental Law
Jonathan D. Varat Endowed Chair in Law
William D. Warren Chair in Law
Frank G. Wells Endowed Chair in Environmental Law
Stephen Yeazell Endowed Chair in Law
Eric M. Zolt Chair in Tax Law and Policy

College of Letters and Science

Armen A. Alchian Chair in Economic Theory
Maurice Amado Chair in Sephardic Studies
Jahangir and Eleanor Amuzegar Chair in Iranian Studies
Aris Anagnos Family Chair in Hellenic Studies
Joyce Oldham Appleby Endowed Chair of America in the World
Thomas M. Asher Endowed Chair in Microbiology
George and Nouhad Ayoub Chair in Life Sciences Innovation
Marilyn Beaudry-Corbett Endowed Chair in Mesoamerican Archaeology
Bedari Kindness Institute Endowed Chair
Neria and Manizheh Vomtoubian Endowed Chair in Cancer and Risk Sciences

Appendices / 857
President’s Chair in Developmental Immunology
Howard and Astrid Preston Term Chair in Astrophysics
Pritzker Chair in Environment and Sustainability I
Pritzker Chair in Environment and Sustainability II
Ramanujan Visiting Professorship
Hans Reichenbach Chair in Scientific Philosophy
Peter Reill Chair in European History (1450 to Modern)
Howard Reiss Career Development Chair
John D. and Edith M. Roberts Term Chair in Organic Chemistry
Maria Rowena Ross Term Chair in Biological Sciences
Michael and Irene Ross Endowed Chair in Yiddish Studies
Marcie H. Rothman Presidential Chair in Food Studies
Musa Sabi Chair in Iranian Studies
Edward W. Said Professorship in Comparative Literature
David Saxon Presidential Term Chair in Mathematics
David Saxon Presidential Term Chair in Physics
David S. Saxon Presidential Chair in Physics
Randy Schekman and Sabeena Merchant Centennial Term Chair
David O. Sears Presidential Endowed Chair in Division of Social Sciences
Johanna F. and Joseph H. Shaper Family Chair in Microbiology
Shapiro Family Endowed Chair in Modern Political Theory
Joan Silsbee Chair in African Cultural Archaeology
Louis B. Slichter Chair in Geophysics and Planetary Physics
Louis B. and Martha B. Slichter Endowed Chair in Geosciences
Kenneth L. Sokoloff Chair in Economic History
Charles Speroni Chair in Italian Literature and Culture
Staglin Family Chair in Psychology
Steinmetz Chair in Classical Archaeology and Material Culture
Irving and Jean Stone Endowed Chair I
Irving and Jean Stone Endowed Chair II
Irving and Jean Stone Endowed Chair III
Jean Stone Chair
Keith and Cecilia Terasaki Presidential Endowed Chair in Division of Life Sciences
Kenneth N. Trueblood Endowed Chair in Chemistry and Biochemistry
UCLA Foundation Chair
Viterbi Family Endowed Chair in Mediterranean Jewish Studies
Alexander von Humboldt Endowed Chair in Geography
Walter and Shirley Wang Endowed Chair in Medicinal Drug Discovery
Scott Waugh Endowed Chair in Division of Social Sciences
Eugen Weber Chair in Modern European History
Robert and Dorothy Wellman Chair in Medieval History
Bernice Wenzel and Wendell Jeffrey Term Endowed Chair in Behavioral Neuroscience
Bernice Wenzel and Wendell Jeffrey Term Endowed Chair in Cognitive Neuroscience
Bernice Wenzel and Wendell Jeffrey Term Endowed Chair in Developmental Neuroscience
Dean M. Willard Chair in Chemistry
Saul Weinstein Chair in Organic Chemistry
Linda and Fred Wudl Term Chair
Tadashi Yanai Endowed Chair in Japanese Literature
Kyoko Yuki and Masamichi Takesaki Endowed Chair in Operator Algebras
Stanley M. Zimmerman Endowed Chair in Economics and Finance
Jeffrey and Helo Zink Endowed Professional Development Term Chair in Chemistry
California Chair in Real Estate and Land Economics
Edward W. Carter Chair in Business Administration
William M. Cockrum III Presidential Term 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 Hearsh 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
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 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 Altschuler Endowed Chair in Mood Disorders
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
Dena Bat-Yacov Endowed Chair in Psychiatry
Ulrich Batzdorf, MD, Chair in Spinal Neurosurgery
Louis D. Beaumont Chair in Surgery
Donald P. Beckman Chair in Neurosurgery
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

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
Donnalisa ’86 and Bill Barnum Endowed Term Chair in Management
Robert D. Beyer ’83 Chair in Management

Appendices

858 /
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
Castera 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
Carol and James Collins Chair in Geriatric Medicine
William E. Connor Chair in Cardiothoracic Transplantation
Eliot Corday Chair in Cardiovascular Medicine and Science
Norman Cousins Chair in Psychoneuroimmunology
Crump Chair in Medical Engineering
Karen and Frank Dabbs Endowed Chair in Ophthalmology
Dr. Alfonso 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
Robert and Kelly Day Chair in Transplantation
Jean B. deKernion, MD, Endowed Chair in Urology
Wini and William J. Dignam, MD, Endowed Chair in Obstetrics and Gynecology
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 Doutman Chair
Roy and Carol Doutman Chair in Urological 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
Elise and Isaac Fogelman Endowed Chair in Pediatric Neurology
Dr. Daniel X. Freedman Administrative Chair in Academic Psychiatry
John Douglas French Alzheimer’s Foundation Endowed Chair
Joaquim 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
Rosalie and Arthur Gilbert Foundation Endowed Chair in Health-Care Delivery
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 Neurosurgery
Steven C. Gordon Family Chair in Parkinson’s Disease Research
Dolly Green Chair in Ophthalmology
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
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 of 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 Kirchgessner 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
Hilile Lewis Family Chair in Ophthalmology
Walton Li Chair in Cornea and Uveitis
Lincy Foundation Chair in Family Gastroenterology
Lincy Foundation Distinguished Service Chair
William P. Longmire, Jr., Chair in Surgery
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
Della Martin Chair in Psychiatry
Mellin Oval Endowed Chair in Pediatrics
David May II Chair in Ophthalmology
John Mazzotti Endowed Chair in Neurology
John Mazzotti, MD, PhD, Term Chair in Medicine
Henry Alvin and Carrie L. Meinhardt Chair in Kidney Cancer Research
Sherman M. Mellinkoff Distinguished Professor in Medicine Chair
Joanne and George Miller and Family Endowed Chair
Timothy A. Miller Chair in Plastic Surgery
Michael M. Minchin, Jr., President, JD French Alzheimer’s Foundation Endowed Chair
Jeffrey Modell/Sidney Sheldon Chair in Immunology
Wesley S. Moore, MD, Endowed Chair in Endovascular Surgery
Moss Foundation Chair in Gastrointestinal and Personalized Surgery
Dr. Walter and Mrs. Kathryn Mullikin Chair in Orthopaedic Surgery
Jane and Marc Nathanson Endowed Chair
James H. Nicholson Chair in Pediatric Cardiology
Mary Oakley Foundation Chair in Neuro-degenerative Diseases
Frances M. O’Malley Administrative Chair in Neuroscience History
William and Patricia Oppenheimer Presidential Chair in Pediatric Orthopaedics
Oppenheimer Brothers Chair
Helga and Walter Oppenheimer Endowed Chair in Orthopaedic Oncology
Philip L. Palumbo Chair in Clinical Hepatology
Albert F. Parlow and David H. Solomon Chair for UCLA Program on Aging
Gail Patrick Endowed Administrative Chair in Brain Research
Samuel J. Pearlman, MD, and Della Z. Pearlman Chair in Head and Neck Surgery
Carl M. Pearson, MD, Endowed Chair in Rheumatology
Pennington Family Foundation Endowed Term Chair in Pediatrics
Frances and Albert Pansky Chair in Anatomy
Guitaara Pierpoint Endowed Chair in Intestinal Pulmonary Fibrosis
Thomas P. and Katherine K. Pike Chair in Addictive Studies
Elizabeth R. and Thomas E. Plott Chair in Gerontology
Edith Agnes Plumb Endowed Chair in Neurobiology
Harold and Pauline Price Chair in Ophthalmology
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)

1964
Mostafa A. El-Sayed (Chemistry and Biochemistry)
Leon Howard (English)
Moshe 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. Barholomew (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 D. 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. Dukemenier (Law)
George R. Guffey (English)
Marilyn L. Kouritsu (Education)
Chand R. Viswanathan (Electrical Engineering)

1977
Michael J.B. Allen (English)
Henry M. Cherrick (Dentistry)
Richard C. Maxwell (Law)
J. William Schoft (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)

1984
Robert Dallek (History)
Hooshang Kangerlo (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)
Howard Suber (Film and Television)
Richard A. Yarborough (English)

1988
Alison G. Anderson (Law)
Ann L.T. Bergren (Classics)
Charles A. Berst (English)
Michael J. Goldstein (Psychology)
Richard L. Sklar (Political Science)

1989
John B. Garnett (Mathematics)
Kathleen L. Komar (Comparative Literature, Germanic Languages)
William G. Roy (Sociology)
Stephen Yenser (English)
Eric M. Zolt (Law)

1990
Peter M. Narins (Physiological Science)
Gary B. Nash (History)
John S. Wiley (Law)
Merlin C. Wittrock (Education)
Ruth Yeazell (English)

1991
Michael R. Asimow (Law)
Edward G. Berenson (History)
Robert A. Bjork (Psychology)
Margaret FitzSimmons (Urban Planning)
Kenneth R. Lincoln (English)

1992
Bruce L. Baker (Psychology)
Paul B. Bergman (Law)
Robert B. Goldberg (Molecular, Cell, and Developmental Biology)
Peter E. Kollock (Sociology)
Eugen Weber (History)

Bryan C. Ellickson (Economics)
Robert S. Elliott (Electrical Engineering)
Albert D. Hutter (English)
Charles M. Knobler (Chemistry and Biochemistry)
1993
Calvin B. Bedient (English)
Richard B. Kaner (Chemistry and Biochemistry)
Katherine C. King (Classics)
William G. Ouchi (Management)
Bruce Schulman (History)

1994
David A. Binder (Law)
Jon P. Davidson (Earth and Space Sciences)
Melvin Oliver (Sociology)
Barbara L. Packer (English)
E. Victor Wolfenstein (Political Science)

1995
Noriko Akatsuka (East Asian Languages and Cultures)
Douglas Hollan (Anthropology)
V.A. Kolve (English)
Jerome Rabow (Sociology)
Paul V. Reale (Music)

1996
Walter Allen (Sociology)
Judith A. Carney (Geography)
William M. Gelbart (Chemistry and Biochemistry)
Phyllis A. Guzé (Medicine)

1997
Uptal Banerjee (Molecular, Cell, and Developmental Biology)
Christine D. Gutierrez (Education)
Susan McClary (Musicology)
Arnold B. Scheibel (Neurobiology, Psychiatry and Biobehavioral Sciences)
Ivan Szelenyi (Sociology)

1998
George W. Bernard (Dentistry)
Verónica Cortínez (Spanish and Portuguese)
Wayne A. Dollase (Earth and Space Sciences)
Jayne E. Lewis (English)
Joshua S.S. Muldavin (Geography)

1999
Grace Ganz Blumberg (Law)
Alessandro Duranti (Anthropology)
Richard H. Gold (Radiological Sciences)
N. Katherine Hayles (English)
Bernard Weiner (Psychology)

2000
Scott H. Chandler (Physiological Science)
Efrain Kristal (Spanish and Portuguese)
Hector F. Myers (Psychology)
David Sklansky (Law)
Robert N. Watson (English)

2001
Michael J. Colacurcio (English)
Glen M. MacDonald (Geography)
Kevin Terraciano (History)
James W. Trent (Education)
Brian Walker (Political Science)

2002
Christopher R. Anderson (Mathematics)
Steven G. Clarke (Chemistry and Biochemistry)
Anne K. Mellor (English)
Lee Todd Miller (Pediatrics)
Grant S. Nelson (Law)

2003
Joseph J. DiStefano III (Computer Science, Medicine)
Robin L. Garrell (Chemistry and Biochemistry)
A.P. Gonzalez (Film, Television, and Digital Media)
Mitchell B. Morris (Musicology)
Kirk J. Stark (Law)

2004
David B. Kaplan (Philosophy)
Kathryn A. Morgan (Classics)
Mark R. Morris (Physics and Astronomy)
Jesús Torrecilla (Spanish and Portuguese)
Joan Waugh (History)

2005
Roger Bourland (Music)
Robert G. Fovell (Atmospheric and Oceanic Sciences)
Elma González (Ecology and Evolutionary Biology)
Elizabeth A. Marchant (Spanish and Portuguese)
Mike Rose (Education)
Keith D. Stolzenbach (Civil and Environmental Engineering)

2006
Robert A. Gurval (Classics)
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)
Behzad Razavi (Electrical Engineering)
Daniel G. Solórzano (Education)
Blaire Van Valkenburgh (Ecology and Evolutionary Biology)

2008
Elizabeth L. Bjork (Psychology)
Peggy M. Fong (Ecology and Evolutionary Biology)
Linda C. Garro (Anthropology)
Teofilo F. Ruiz (History)
Benjamin J. Schwartz (Chemistry and Biochemistry)
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)
Susan J. Plann (Applied Linguistics, Spanish and Portuguese)
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)
Jerry Kang (Law)
Steven P. Reise (Psychology)
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 I. Cole (Communication Studies)
Cheryl Giuliani (Writing Programs)

1988
Jeanne Gunner (Writing Programs)
Art Huffman (Physics and Astronomy)
David G. Kay (Computer Science)

1989
S. Scott Bartchy (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 Damron-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 Lavelie (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. Fallows (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)
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)

2004-06
Andrea M. Ghez (Physics and Astronomy)

2006-08
Robert N. Watson (English)

2007-09
William J. Kaiser (Electrical Engineering)

2008-10
Alicia Gaspar de Alba (Chicana and Chicano Studies)

2009-11
Robin L. Garrell (Chemistry and Biochemistry)

2010-12
David H. Gere (World Arts and Cultures)

2011-13
Matthew D. Lieberman (Psychology)

2012-14
Kevin B. Terraciano (History)

2013-15
Luisa M. Iruela-Arispe (Molecular, Cell, and Developmental Biology)

2014-16
Brenda Stevenson (History)

2015-17
Neil K. Garg (Chemistry and Biochemistry)

2016-18
Charlene Villaseñor Black (Art History)

2017-19
Daniel T. Blumstein (Ecology and Evolutionary Biology)

2018-20
Daniel M.T. Fessler (Anthropology)

2019-21
Paul H. Barber (Ecology and Evolutionary Biology, Environment and Sustainability)

2020-22
Janet M. O’Shea (World Arts and Cultures/Dance)

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.

Two UCLA faculty have been appointed University Professors. M. Frederick Hawthorne, Emeritus (Chemistry and Biochemistry) Owen N. Witte (Microbiology, Immunology, and Molecular Genetics)
art of performance, 37
Asian American studies, 19
biobehavioral assessment and research, 131
brun resource, 33
cancer prevention and control research, 131
cancer, Jonsson comprehensive, 22
career, 34, 54
Chicano studies research, 20
community engagement, 56, 100
critical internet inquiry, 156
Dashew international students and scholars, 35
educational assessment, 100
energy science and technology advanced research, 22
environmental genomics, 131
European and Russian studies, 19
evaluation, 22
evaluation, standards, and student testing, research on, 22, 157
evaluation, study of, 157
eye research, 21
eye research, Edie and Lew Wasserman, 21
Fernald child study, 22
food law and policy, 166
global and immigrant health, 131
global health equity, UCLA Kaiser Permanente, 134
health policy research, 132
healthcare management, 132
healthier children, families, and communities, 132
healthy climate solutions, 132
immigration law and policy, 163
improving child care quality, 157
information as evidence, 157
innovation, 141
intellectual and developmental disabilities research, 21
intercollegiate athletics, 39
knowledge infrastructures, 157
labour research and education, 20
law and economics, 163
lesbian gay bisexual transgender campus resource, 35
LGBTQ advocacy research and health, 133
logic, 22
Los Angeles tennis, 39
marina aquatic, 38
medieval and renaissance studies, 19
native nations law and policy, 165
Near Eastern studies, Grunebaum, 20
occupational and environmental health, 133
policy research on aging, 142
population and reproductive health, Bixby, 131
population research, California, 22
prevention research, UCLA, 134
public health and disasters, 133
real estate, Richard S. Ziman, 166
recreation and sports, John R. Wooden, 38
regional policy studies, Ralph and Goldy Lewis, 142
research and innovation in elementary education, 157
scholarship resource, 101
seventeenth- and eighteenth-century studies, 19
Southern California NIOSH education and research, 134
strengthening children and families, Pritzker, 158
student health and wellness, Ashe, 28
study of racism, social justice, and health, 133
sunset canyon recreation, 38
transformation of schools, 157
UC Sacramento (UCCS), 56
UC Washington, 55
undergraduate research, 53, 101
urban poverty, study of, 22
women, study of, 20
world policy analysis, 134
X, 157
central American studies minor, 290
central and east European languages and cultures major, 767
central and east European studies minor, 769
central ticket office, 34
certificate of resident study for international students, 82
change of address or name, 79
changing majors graduate, 70
undergraduate, 51
Charles Drew/UCLA medical education program, 111
chemical and biomolecular engineering department, 270
chemical engineering major, 271
chemistry and biochemistry department, 276
chemistry major, 277
chemistry/materials science major, 279
Chicana/o and Central American studies department, 288
Chicana and Chicano studies major, 289
minor, 290
child care, 34
Chinese major, 229
civil and environmental engineering department, 299
civil engineering major, 300
civil rights project/proyecto derechos civiles, 157
class enrollment graduate, 67
undergraduate, 45
class levels, 72
classical civilization major, 307
minor, 309
classics department, 306
classics, 310
Greek, 313
Latin, 314
climate science major, 251
closure of student records, 80
club sports, 38
clubs and organizations, 36
cluster program, 316
cognitive science major, 738
minor, 740
college and school advisers, 58
college honors, 109
college of letters and science, 100
collegium of university teaching fellows, 57
commencement, 83
products and services, 33
committee, doctoral, 71
communication department, 318
communication studies major, 318
community archives lab, 157
community engagement and social change interdisciplinary minor, 323
community health sciences department, 326
community programs office, 36
comparative literature department, 332
major, 332
minor, 332
complaints and grievances grades, 76
student, 76, 96, 97, 98
computational and systems biology interdepartmental program, 338
computational and systems biology major, 338
computational medicine department, 341
computer engineering major, 412
crime laboratories, 27
crime science and engineering major, 344
crime science department, 344
crime science major, 345
crime specialization chemistry and biochemistry, 277, 278, 279, 280
crimeology studies, 319
ecology and evolutionary biology, 375
linguistics, 578, 579, 580, 581, 582, 583
mathematics, 609, 610, 611, 613, 614
mathematics/economics, 624
molecular, cell, and developmental biology, 643
psychology, 738, 739, 740
sociology, 794
computing, program in, see mathematics, 622
concurrent degrees, graduate, 11
concurrent enrollment, 45
courses and architecture, 148
crime and applied science, 117
crime, music, 127
nursing, 171
public affairs, 140, 155
theater, film, and television, 177
conduct
faculty, 97
student, 91
confidentiality of student records, 98
conservation biology minor, 377
conservation of archaeological and ethnographic materials interdepartmental program, 354, 398
continuous registration policy, graduate student, 68, 78
correction of grades, 76
counseling and psychological services (CAPS), 28, 30
counseling services, undergraduate academic, 57–60
courses and architecture, 148
crime and applied science, 118
crime and science, 100
music, 127
nursing, 171
public affairs, 141, 156
theater, film, and television, 178
course readers, 27
CPR and basic emergency care courses, 29
credit by examination, 42, 73
credit for advanced placement examinations
arts and architecture, 148
crime and applied science, 113, 117
letters and science, 104, 107
music, 127
nursing, 171
theater, film, and television, 178
credit for upper-division tutorials, 73
credit limitations
arts and architecture, 148
crime and applied science, 117
D
Daily Bruin newspaper, 32
dance department. see world arts and cultures/dance, 840
dance major, 841
data theory major, 610, 811
dean of students office, 34
dean’s honors list, 60
arts and architecture, 148
gineering and applied science, 118
letters and science, 109
music, 127
nursing, 172
public affairs, 141, 156
theater, film, and television, 178
declaration of candidacy
graduate students, 83
undergraduate, 82
declaring a major, 51
defered report (DR) grades, 76
degree policies
graduate, 82
undergraduate, 80
degree audits, 83, 106, 109, 118, 124, 141, 144, 156, 172, 178
degree checks, 81
degree date, 83
degree requirements toward, 81
degree requirements
graduate, 69
undergraduate department, 53
arts and architecture, 143
gineering and applied science, 114
letters and science, 101
music, 123
nursing, 168
public affairs, 136, 151
theater, film, and television, 174
university, 52
degrees. see majors and degrees, 6–12
dentistry department, 357
dentistry school, 149
departmental honors, 60, 109
departmental scholar program, 60
arts and architecture, 148
engineering and applied science, 119
letters and science, 109
design|media arts department, 357
major, 357
development studies. see international development studies, 560
digital cultures laboratory, 158
digital humanities interdisciplinary minor, 360
dining halls, 36
diplomas, 84
direct loans, 50
disabilities and computing program, 27
disability studies interdisciplinary minor, 361
disclosure of student records, 98
dischal, academic, 80
dissertation, doctoral, 71
honors awards, 861
diversity requirement
arts and architecture, 145
letters and science, 103
music, 124
public affairs, 138, 153
teacher committee, 71
teaching assistant, 71
teaching oral qualifying examination, 71
teaching degree
education, 399
environmental science and engineering, 440
jurisdictional science (SJD), 159
jurisdictional science, 159, 570
jury (JD), 159, 570
library and information science, 541
medicine, 110
musical arts, 652
oral biology, 149
see majors and degrees, 6–12
document fee, 79
Drake stadium, 39
drop/add courses. see class enrollment, 67
dropping out. see withdrawal, 77
duplicate graduate degrees, 65
Earth and environmental science
major, 365
minor, 366
earth, planetary, and space sciences department, 364
East Asian studies interdepartmental program, 372
minor, 557
Easton softball stadium, 39
ecology and evolutionary biology department, 373
ecology, behavior, and evolution major, 375
economics department, 395
major, 386
education abroad program, 17, 107, 109
education and information studies graduate school, 150
education and social transformation major, 398
education department, 398
education studies minor, 55, 399
electrical engineering department, 411
electrical engineering major, 412
emergency medicine department, 420
empirical research group, law, 164
employment assistance, 34
endowed chairs, 856
engineering degree, 120, 420
gineering and applied science, Henry Samueli school, 111
engineering geology major, 365
engineering schoolwide programs, 420
English as a second language (ESL)
coursework for financial aid, 84
requirement, 850
placement examination (ESLPE), 52, 64, 850
English composition requirement. see writing requirement
English department, 424
major, 426
minor, 427
entrance requirements, undergraduate, 41
entrepreneurship interdisciplinary minor, 437
minor, 437
entry-level writing, 52, 850
environment and sustainability, institute of, 438
environment, health, and safety office, 29
environmental engineering minor, 300
environmental health sciences department, 443
environmental science major, 439
environmental systems and society minor, 440
epidemiology department, 447
ethnomusicology department, 451
major, 451
minor, 452
European languages and transcultural studies department, 457
major, 458
minor, 461
European languages and transcultural studies with French and Francophone
major, 458
minor, 461
European languages and transcultural studies with German
major, 459
minor, 461
European languages and transcultural studies with Italian
major, 459
minor, 462
European languages and transcultural studies with Scandinavian major, 460
European studies
major, 555
minor, 557
Evolutionary medicine minor, 377
examinations
advanced placement, 104, 107, 113, 117, 127, 148, 171, 178
alternate dates, 73
analytical writing placement (AWPE), 43, 52, 850
credit by, 42, 73
English as a second language placement (ESLPE), 52, 64, 850
final, undergraduate, 73
graduate record (GRE), 63
international English language testing system (IELTS), 64
qualifying doctoral written and oral, 71
test of English as a foreign language (TOEFL), 52, 64
test of oral proficiency (TOP), 64
expected cumulative progress, 81
experiential education program, law, 164
extension, UCLA, 18
externships and field placements, law, 164
faculty code of conduct, 97
faculty, see education, 13
FAFSA, see free application for federal student aid, 47, 89
family medicine department, 474
federal direct loan program, William D. Ford, 50
federal work study, 50
fees
annual, 43, 66
course materials and services, 44
document, 79
filing, graduate, 67
graduate, 66
instructional enhancement initiative, 44
miscellaneous, 44, 66
nonresident supplemental tuition, 43, 85
professional degree supplemental tuition, 66
reduced, 44, 106
refunds, 44, 66
self-supporting program, 66
undergraduate, 43
fellowships, 69
flat lux seminars, 57
Fielding school of public health, 129
film and television
archive, 25, 173
major, 475
film, television, and digital media
department, 474
minor, 476
final examinations, undergraduate, 73
financial actuarial mathematics major, 611
financial aid and scholarships, 47, 69
financial aid standards for satisfactory academic progress, 84
food court, 32
food studies interdisciplinary minor, 484
foreign language requirement
arts and architecture, 145
graduate degrees, 70
letters and science, 103
music, 124
public affairs, 137, 153
theater, film, and television, 175
undergraduate admission, 41
foreign literature in translation, 485
foreign study, see education abroad program, 107, 109
foreign study, see education abroad program, 17
fraternities, 37
hazing, 36
fraternity and sorority relations, 37
free application for federal student aid (FAFSA), 47, 69
full-time graduate program, 68
functional genomics, undergraduate research consortium in, 575

G

gardens
Mathias botanical, 26
Murphy sculpture, 22
Geffen playhouse, 173
Geffen school of medicine, 110
gender studies department, 474
major, 488
minor, 488
general chemistry major, 278
general education requirements
arts and architecture, 145
engineering and applied science, 115
letters and science, 103
music, 124
nursing, 170
public affairs, 138, 153
theater, film, and television, 175

geosciences
human, 536
institute for society and, 786
geochemistry minor, 366
geochemistry department, 494
major, 495
minor, 496
geography/environmental studies
major, 495
minor, 496
geology
major, 365
minor, 367
geophysics and planetary physics minor, 367
genetics minor, 496
geospatial information systems and technologies minor, 496
gerontology interdisciplinary minor, 502
global health interdisciplinary minor, 503
global jazz studies interdepartmental program, 504
global studies interdepartmental program, 506
major, 506
minor, 507
gold shield faculty prize, 866
golden key, 60
government, student, 31
grade assignment, 76
grade points, 74
grades and grading regulations, 76
appeals, 76
change or correction, 76
complaints, 76
type grades, 75
minimum scholarship (undergraduate), 80
graduate division, 62
leave of absence, 78
graduate record examination (GRE), 63
graduate student
tool, 31
researchers, 69
graduate student professional development courses, 509
graduation, 82
in absentia, 82
grants, 49, 69
California student aid commission, 47, 49
Greek and Latin major, 308
Greek
major, 307
minor, 309
grievances and complaints, student, 76, 96, 97, 98

H

handicap services, 34
harassment, 96
head and neck surgery department, 509
health and safety, services for, 28
health assessment and evaluation, professional schools, 68
heath policy and management department, 509
Hebrew and Jewish studies minor, 670
Hispanic languages and literatures, 805
history department, 514
major, 515
minor, 516
history of science, technology, and medicine
minor, 516
history, UCLA, 14
honors college, 57, 529
honors programs, letters and science, 101
honors, undergraduate, 60
arts and architecture, 148
engineering and applied science, 118
honors societies, 60
letters and science, 109
music, 127
nursing, 172
public affairs, 141, 156
theater, film, and television, 178
housing, 35
human biology and society major, 786, 788
human genetics department, 536
human rights, promise institute for, 165
humanities division, letters and science, 99

I

immunization requirements, 68
in absentia graduation, 82
in absentia registration, 67, 78
in progress (IP) grades, 76
incomplete (I) grades, 75
individual majors, 147
Indo-European studies interdepartmental program, 539
infant development program, 737
information studies department, 540
institutions
AIDS, 22
American cultures, 19, 20, 21
archaeology, Cotsen, 20
black male, 156
brain research, 19
business law and policy, Lowell Milken, 165
climate change and the environment, Emmett, 164
democracy, education, and access, 158
education and new media, Sudikoff family, 158
environment and sustainability, 438
eye, Jules Stein, 21
genomics and proteomics, UCLA-DOE, 21
genomics and planetary physics, 20
gerontology interdisciplinary minor, 502
immigration, globalization, and education, 158
inequality and democracy, 141
international, 18
Latin American, 21
law, technology, and public policy, UCLA, 166
media, entertainment, technology, and sports law, Ziffren, 166
molecular biology, 21
molecular imaging, Crump, 20
neuroscience and human behavior, Semel, 111
Paulo Freire, 158
plasma science and technology, 21
pure and applied mathematics, 22
research on labor and employment, 20
sexual orientation and gender identity law and public policy, Williams, 166
society and genetics, 786
transportation studies, 142

index / 870
international students
admission
graduate, 64
undergraduate, 43
certificate of resident study, 82
Dashew center for, 35
English proficiency tests, 43, 64
time-level writing requirement, 52
examination in English for, 43, 64
services, 34
internships and service programs
international opportunities, 54
quarter in Washington, DC, 55
Washington DC fellows summer, 55
intersegmental general education transfer curriculum, 104, 116, 126, 139, 146, 154, 171, 176
intramural sports, 38
Iranian studies
major, 668
minor, 670
Israel studies minor, 670
IT services, 27
J
Japanese major, 230
Jewish studies major, 668
K
Korean major, 230
L
labor studies interdepartmental program, 563
major, 564
minor, 564
laboratory animal medicine, division of, 26
language courses
American sign language (ASL), 583
Arabic, 674
Armenian, 676
Bulgarian, 770
Chinese, 234
Czech, 771
Dutch, 462
English as a second language (ESL), 851
Filipino, 238
French, 463
German, 465
Greek, 313
Hebrew, 677
Hindi-Urdu, 239
Hungarian, 771
Indonesian, 239
Iranian, 678
Italian, 468
Japanese, 240
Korean, 243
Latin, 314
Lithuanian, 772
Nahuatl, 805
Persian, 678
Polish, 772
Portuguese, 805
Quechua, 805
Romanian, 773
Russian, 773
Serbian/Croatian, 775
Spanish, 807
Swahili, 588
Thai, 248
Ukrainian, 777
Vietnamese, 248
Yiddish, 473
Zapotec, 805
language of instruction, 72
language requirement, foreign
arts and architecture, 145
graduate degrees, 70
letters and science, 103
public affairs, 137, 153
theater, film, and television, 175
undergraduate admission, 41
late payment of fees. see fees, miscellaneous, 44, 66
Latin American studies interdepartmental program, 568
major, 555
minor, 558
Latin honors, 60
arts and architecture, 148
engineering and applied science, 118
letters and science, 109
music, 127
nursing, 172
public affairs, 141, 156
theater, film, and television, 178
Latin
major, 308
minor, 309
Latino policy and politics initiative, 142
law and philosophy program, 165
law department, 569
law school, 158
legal services, student, 36
lesbian, gay, bisexual, transgender, and queer studies interdisciplinary minor, 571
letters and science college, 99
collegewide programs, 574
letters of recommendation/verification, 63
libraries
African American studies, 25
American Indian studies center, 25
archives and collections, special, 25
arts, 23
Asian American studies, 25
Belt library of Vinciana, 23
Chicano studies research center, 25
Clark memorial, 20, 25
Darling biomedical, 24
Darling law, 24
English reading room, 25
ethnomusicology archive, 26
film and television archive, 25
instructional computing commons, 24
lab school, Gonda family, 26
music, 24
performing arts special collections, 23, 24
Powell, 24
Rosenfeld management, 24
Rudolph East Asian, 24
science and engineering, 24
social science data archive, 26
Young research, 23
life sciences core curriculum, 574
life sciences division, letters and science, 99
linguistics and anthropology major, 579
linguistics and Asian languages and cultures major, 579
linguistics and computer science major, 580
linguistics and English major, 580
linguistics and French major, 580
linguistics and Italian major, 581
linguistics and philosophy major, 581
linguistics and psychology major, 582
linguistics and Scandinavian languages major, 582
linguistics and Spanish major, 583
linguistics department, 577
American sign language, 583
linguistics, 584
Swahili, 588
linguistics
major, 577
minor, 583
literature and environment minor, 427
loans, 49, 69
Luskin school of public affairs, 135
M
mail, campus, 35
major regulations
arts and architecture, 147
engineering and applied science, 116
letters and science, 105
music, 126
public affairs, 139, 155
theater, film, and television, 177
majors
capstone, individual, 105
change of, 70
letters and science, 107
public affairs, 140, 155
individual
arts and architecture, 147
letters and science, 574
theater, film, and television, 830
majors, see majors and degrees, 6–10
management department, 589
executive MBA, 597
full-employed MBA, 599
full-time MBA, 598
global executive MBA Asia Pacific, 599
management, 591
master of financial engineering, 600
master of science in business analytics, 600
PhD, 601
management, John E. Anderson graduate school, 128
marine biology major, 376
master’s capstone, 71
master’s degrees
architecture, 205
arts in teaching, 615, 715
business administration, 128, 590
education, 399
engineering, 120, 420
financial engineering, 128, 590
fine arts, 208, 358, 476, 843
laws (LLM), 161, 570
legal studies (MLS), 161, 570
library and information science, 541
music, 652
public health (MPH), 444, 510
science in engineering online, 120
science in nursing, 693
see majors and degrees, 6–12
urban and regional planning, 135, 832
master’s thesis, 71
materials engineering major, 603
materials science and engineering department, 602
math for LA, 55
mathematical biology minor, 340
mathematics department, 607
mathematics, 615
program in computing, 622
mathematics for teaching
major, 55, 613
minor, 56, 614
mathematics
major, 608
minor, 614
mathematics of computation major, 611
mathematics single-subject credential
preparation, 608
mathematics/applied science major, 612
mathematics/economics interdepartmental
program, 623
mathematics/economics major, 623
mechanical and aerospace engineering
department, 624
mechanical engineering major, 625
medicine department, 632
medicine, David Geffen school, 110
mental health sciences, 28
Mexican studies minor, 804
microbiology, immunology, and molecular
genetics department, 633
major, 634
Middle Eastern studies
major, 668
minor, 670
migration studies. see international migration
studies, 563
minimum progress, 81
arts and architecture, 147
ingredient and applied science, 117
letters and science, 106
music, 126
nursing, 171
public affairs, 140, 155
theater film, and television, 177
minimum scholarship requirements, 70
minimum standards for graduate degrees, 70
minors, undergraduate, 10
molecular and medical pharmacology
department, 639
molecular biology interdepartmental
program, 641
molecular toxicology interdepartmental
program, 648
molecular, cell, and developmental biology
department, 642
major, 642
molecular, cellular, and integrative physiology
interdepartmental program, 647
momentum, 158
mortar board, 60
museums
Fowler, 22
Grunwald center for the graphic arts, 22
Hammer, 23
meteorite gallery, 23
Murphy sculpture garden, 22
new Wight gallery, 23
music department, 649
major, 650
music composition major, 650
music education major, 651
music history and industry major, 661
music industry interdisciplinary minor, 658
music performance major, 651
music, Herb Alpert school, 121
musicology department, 660
major, 660
minor, 661
MyUCLA, 28

N
name change, legal, 79
natural reserve system, UC, 26
Navy ROTC, 665
Near Eastern languages and cultures
department, 666
ancient Near East, 671
Arabic, 674
Armenian, 676
Hebrew, 677
Iranian, 678
Islamics, 680
Jewish studies, 680
Middle Eastern studies, 682
Near Eastern languages, 683
Semtics, 684
Turkic languages, 684
neurobiology department, 685
medical history, 685
neurobiology, 685
neurology department, 686
neuroscience
major, 687
minor, 687
neuroscience
graduate interdepartmental program, 690
undergraduate interdepartmental program, 690
neurosurgery department, 691
new student and transition programs, 58, 101
newsmagazines, 32
news, Daily Bruin, 32
no degree objective, 65
nondiscrimination, 90
nonresident students
reduced fee programs, 67
supplemental tuition, 43, 44, 66
exemptions, 87
Nordic studies major, 460
nursery school, university parents, 34
nursing department, 692
nursing prelicensure major, 692
nursing school, 166

O
obstetrics and gynecology department, 701
office of instructional development, 864
ombuds service office, 35
ophthalmology department, 701
oral biology department, 702
oral qualifying examination, doctoral, 71
organized research units, 19
orientation, new student, 45, 58
orthopaedic surgery department, 703
outdoor adventures, 38

P
parks, reserves, and natural science
resources, 26
part-time study (undergraduate), see reduced
fee programs, 44
passed/not passed (P/NP) grades, 75
pathology and laboratory medicine
department, 703
Pauley pavilion, 39
pediatrics department, 705
Pell grants, federal, 49
performing arts
center for the art of performance, 37
department events, 37
education minor, visual and, 839
special collections, 23
petitions, 81
pharmacy, see molecular and medical
pharmacology, 639
phi beta kappa, 60
phi eta sigma, 60
philosophy department, 705
major, 706
minor, 706
photo studio, campus, 33
physical sciences division, letters and
science, 99
physics and astronomy department, 712
astronomy, 715
physics, 717
physics and biology in medicine interdepart-
mental program, 721
physics major, 714
physiological science major, 546
physiological science. see integrative biology
and physiology department, 545
physiology department, 723
Pilipino studies minor, 221
planned academic leave (PAL), 77
PLUS loans, direct, 50
police, 29
policies
academic credit, 72
alternate examination dates, 73
faculty conduct, 97
student conduct, 91
undergraduate degree, 80
political science department, 724
major, 724
Portuguese and Brazilian studies
major, 803
minor, 804
post offices, 35
PRIME program, 111
probation, undergraduate academic, 80
professional degree supplemental tuition, 66
professional writing minor, 427
program in computing, 622
progress toward bachelor’s degree, 81
letters and science, 106
proof of enrollment, 79
psychiatry and biobehavioral sciences
department, 725
psychobiology major, 739
psychological counseling services. see
counseling and psychological services, 28
psychology clinic, UCLA, 737
psychology department, 735
major, 737
public affairs interdisciplinary minor, 751
public affairs schoolwide programs, 752
public affairs, Meyer and Renee Luskin
school, 135
public health interdisciplinary minor, 755
public health schoolwide programs, 755
public health, Jonathan and Karin Fielding
school, 129
public interest law and policy, David J. Epstein
program, 163
public interest programs office, law, 165
public policy department, 756
publications, web, and broadcast student
media, 32
qualifying examinations, doctoral written and
oral, 71
quantitative reasoning requirement
arts and architecture, 144
letters and science, 102
music, 124
nursing, 169
public affairs, 137, 152
quarter in Washington, DC, 55
quarter system, 72

R
radiation oncology department, 761
radiological sciences department, 761
rape prevention and education services, 30
readmission policies
graduate, 65
undergraduate, 77
records, 79
recreation
classes and lessons, 38
facilities, 38
outdoor adventures, 38
sports, 38
reduced fee programs, 44, 67, 106
regents scholarships, 48
regents, board of, 855
registration
cancellation, 77, 84
graduate student continuous, 68, 78
graduate student, final term, 68
in absentia, 67, 78
regulations and policies
academic, 72
credit units, 72
religion, study of, interdepartmental program, 762
religion, study of
major, 762
minor, 763
repetition of courses, 72
research programs, 19
reserve officers’ training programs. see ROTC programs, 49, 55
residence for tuition purposes, 85
residence, academic, 70, 102, 123, 136, 144, 152, 169, 174
resident student definition, 85
resident study, certificate of, 82
residential life, office of, 36
restaurants, 32, 36
Robinson stadium, Jackie, 39
Rose Bowl, Pasadena, 39
ROTC programs, 49, 55
aerospace studies, 180
military science, 637
naval science, 665
scholarships, 49, 180, 638, 666
Russian language and literature major, 768
Russian language minor, 770
Russian literature minor, 770
Russian studies
major, 769
minor, 770

S
Sacramento, university of California center (UCCS), 56
safety and security
student resources, 29
Samueli school of engineering and applied science, 111
satisfactory academic progress, financial aid standards, 84
satisfactory/unsatisfactory (S/U) grades, 75
Scandinavian minor, 462
Scandinavian, 470
scholarship standards (graduate), 70
scholarships, 48
financial aid and, 47
ROTC, 49, 180, 638, 666
school of dentistry, 149
school of education and information studies, 150
school of engineering and applied science, Henry Samueli, 111
school of law, 159
school of management, John E. Anderson graduate, 128
school of medicine, David Geffen, 110
school of music, Herb Alpert, 121
school of nursing, 166
school of public affairs, Meyer and Renee Luskin, 135
school of public health, Jonathan and Karin Fielding, 129
school of the arts and architecture, 142
school of theater, film, and television, 172
science education interdisciplinary minor, 56, 765
science teacher education program, 56
services for students with disabilities, 34
sexual assault and violence, 95
short-term loans, 50
simultaneous UC enrollment, 46
Slavic, East European, and Eurasian languages and cultures department, 766
Bulgarian, 770
central and east European studies, 771
Czech, 771
Hungarian, 771
Lithuanian, 772
Polish, 772
Romanian, 773
Russian, 773
Serbian/Croatian, 775
Slavic, 776
Ukrainian, 777
social data science minor, 812
social science interdisciplinary program, 777
social sciences division, letters and science, 100
social thought interdisciplinary minor, 779
social welfare department, 780
society and genetics minor, 789
society and genetics, institute for, 786
sociology department, 792
sociology major, 793
sororities, 37
housing, 36
South Asian studies minor, 558
Southeast Asian studies minor, 559
Spanish and community and culture major, 802
Spanish and linguistics major, 802
Spanish and Portuguese department, 801
indigenous languages of the Americas, 805
Portuguese, 805
Spanish, 807
Spanish and Portuguese major, 803
Spanish linguistics minor, 804
Spanish
major, 801
minor, 804
specializations, undergraduate, 10
speech department. see communication, 318
sports and athletics, 39
statistics department, 810
major, 811
minor, 813
structural biology minor, 340
student activities, 36
conduct, 91
government, 31
legal services, 36
loan obligations, 50
safety and security, 29
services, 16–38
store, 32
student health and wellness center, Ashe, 28
student organizations, leadership, and engagement, 37
student records, disclosure of, 98
student research program (SRP), 53
study abroad, 228, 229, 230, 231, 551, 552, 553, 554, 555, 556, 557, 558, 559, 562, 667, 668, 669, 768, 804
study list
arts and architecture, 147
changes, 45, 67
definition, 45, 67
engineering and applied science, 117
letters and science, 106
music, 126
nursing, 171
public affairs, 140, 155
theater, film, and television, 177
study of religion interdisciplinary program, 762
major, 762
minor, 763
Stunt ranch Santa Monica mountains reserve, 26
summer classes/courses, 18, 65
coursework for financial aid standards, 84
supplemental educational opportunity grants, 348
sustainability, institute of the environment and, 348
systems biology minor, 340

T
tau sigma, 61
teacher education program, 56
teaching assistants, 69
teaching award recipients, 861
teaching opportunities, 55
television archive, film and, 173
test of oral proficiency (TOEFL), 52, 64
test of oral proficiency (TOP), 64
theater department, 819
major, 819
minor, 820
theater, film, and television school, 172
theater, film, and television schoolwide programs, 830
theses, master’s, 71
tickets, 34
tours, campus, 40
transfer alliance program, 101
transfer credit, 42, 81
transfer students
admission, 42
credit from other institutions, 42
transfer to other UC campuses, 42
travel study, summer, 17
tuition
nonresident supplemental, 43, 66
professional degree supplemental, 66
U
UC center Sacramento (UCCS), 56
UC Washington center, 55
UCLA extension transfer credit, 81
UCLA history, 14
UCLA store, 32
UCLAradio, 32
undeclared major, 51
undergraduate
majors and degrees, 6
minors and specializations, 10
students association, 31
undergraduate education division, letters and science, 100
undergraduate education initiatives, 101
undergraduate research consortium in functional genomics, 575
undergraduate research, 54
academic courses, 54
undergraduate student initiated education, 57
understanding law, science, and evidence program, 165
unit credit policies, 72
university administrative officers, 855
university grants, 49
university parents nursery school, 34
university studies, 830
urban and regional studies minor, 832
urban planning department, 831
urology department, 839
vaccination requirements, 68
verification transcript
proof of enrollment, 79
veterans affairs and services, 68
veterans resource office, 34
visual and performing arts education interdisciplinary minor, 56, 839
wait list, 45, 68
withdraw, 77
withdrawal from UCLA, 77
women in engineering, 119
work-study program, 50, 69
world arts and cultures department, 840
dance, 843
world arts and cultures, 845
writing programs, 850
English as a second language, 851
English composition, 852
writing requirement
arts and architecture, 144
ingineering and applied science, 114
entry-level, 52
letters and science, 102
music, 123
nursing, 169
public affairs, 137, 152
theater, film, and television, 174
yearbook, BruinLife, 32